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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

A. The Officers of the Commission

President: Office vacant
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Acting Secretary: Dr. W. E. CHINA (*British Museum* (*Natural History*), *Cromwell Road, London, S.W.7*)

B. The Members of the Commission

(*Arranged in order of election or of most recent re-election*)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16 December 1954)
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Professor George Gaylord SIMPSON (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (28 August 1963)

NATURAL HISTOR

BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 21, Part 1 (pp. 1–80) 25th March 1964

Secretary's Note

The Acting Secretary regrets to announce the death of Mr. Francis Hemming, C.M.G., C.B.E., Secretary to the Commission from 1935 to 1958, who died from a heart attack on Saturday night, February 22nd, 1964.

An appreciation of his services to the Commission will be published in due course.

W. E. CHINA
Acting Secretary to the
International Commission on Zoological Nomenclature

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin:*—

(1) Suppression of *Doris lacinulata* Müller, 1776, *Doris fasciculata* Müller, 1776 and *Limax minimus* Forskål, 1775; grant of precedence to CUTHONIDAE Odhner, 1934, over TERGIPEDIDAE Bergh, 1889 (Gastropoda). Z.N.(S.) 1044

(2) Designation of a type-species for *Eubranchus* Forbes, 1838; suppression of the generic names *Ethalion* Risso, 1826, *Amphorina* Quatrefages, 1844, *Galvina* Alder & Hancock, 1855, and several dubious specific names (Gastropoda), Z.N.(S.) 1102

(3) Suppression of *Cavolina* Bruguière, 1791, and emendation to *Cavolinia* of the generic name *Cavolina* Abildgaard, 1791 (Gastropoda). Z.N.(S.) 1103

(4) Suppression of *Cratena* Bergh, 1864 (Gastropoda). Z.N.(S.) 1105

(5) Suppression of *Diaphoreolis* Iredale & O'Donoghue, 1923 and *Doris pennata* Gmelin, 1791 (Gastropoda). Z.N.(S.) 1106

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(see volume 20, pages 236–237)

By D. Hille Ris Lambers (*Bennekom, The Netherlands*)

I should like to make an objection against the proposed suppression of *Eulachnus* Del Guercio, 1909, in *Bull. Zool. Nomenclature* **20** (3) : 236. Dr. Eastop states that Del Guercio defined *Eulachnus* in such a way, that the species *agilis* Kltb.—which by Wilson, 1911, was indicated as the type of *Eulachnus*—was excluded. Börner, 1952, and Eastop in the mentioned paper believe that Del Guercio did not have *Eulachnus agilis* at all and that his description refers to something totally different. However, a careful study of Del Guercio's paper and its figures shows that this author certainly dealt either with *Lachnus agilis* Kltb. or with a species very nearly related to it. Tav. XVIII shows very distinctly and unmistakably morphological details of *Lachnus agilis* Kltb. of which an alate female (fig. 226), and the antennae (fig. 223), tarsus (fig. 223), and siphunculus (fig. 225) of the aptera are figured under the name *Eulachnus agilis*. From these figures it is certain that Del Guercio knew *Eulachnus agilis* quite well and this is also shown by the description published on page 317–321 where a very narrow greyish-green aphid is described. As other related species are not greyish-green it is certain that Del Guercio dealt with the true *Lachnus agilis* Kltb. under the name *Eulachnus agilis* (Kaltenbach) Del Guercio.

Reading of the generic diagnosis of *Eulanchus* reveals that the primary character proposed by Del Guercio is the great length of the first tarsal joint which should be nearly half as long as the second joint. But, as customary in Del Guercio's later papers, one encounters the most incredible confusion of mind, and this must be responsible for the introduction of the character that the last rostral segment should be styletto-shaped. Only in this respect does *Lachnus agilis* Kltb. differ from the generic diagnosis given by Del Guercio.

I should therefore like to state (a) that Del Guercio certainly knew *Lachnus agilis* Kltb. and described that species as *Eulachnus agilis* (Kaltenbach) Del Guercio, (b) that Wilson's designation of *Lachnus agilis* Kltb. as the type of *Eulachnus* Del Guercio, 1909, is valid in as much as *Lachnus agilis* Kaltenbach, 1843, was, both in name and in description, among the species included when *Eulachnus* was erected, (c) and that there is no need to replace the name *Eulachnus* Del Guercio by that of *Protolachnus* Theobald, 1915. Until Börner, 1952, used *Protolachnus* to replace *Eulachnus* Del Guercio in its until then accepted sense, no confusion about this genus had occurred in the literature.

By F. C. Hottes (*Grand Junction, Colorado, U.S.A.*)

I wish to comment on, and propose another alternative to the proposed suppression of the generic name *Eulachnus* Del Guercio, 1909, as applied for by V. F. Eastop.

It is true that in the original description of the genus *Eulachnus* the rostrum of the species Del Guercio called *Eulachnus agilis* (Kalt.) does not fit. It should be noted that the species Del Guercio called *agilis* consisted of two species, as already noted by Börner (1952 : 241). One an alate to which Börner gave the name *Protolachnus martellii* and an immature apterous specimen belonging to another genus. The figures of the rostrum on pages 193 and 195 indicate that Del Guercio was aware that the rostrum of the genus *Eulachnus* had two types of apices, and his description of the alate and apterous forms of the species he called *agilis* indicate that he was aware of this.

Thus, while Del Guercio's description of the genus *Eulachnus* does exclude the species to which all other authors have applied the name *agilis* Kalt., he did include within his genus a species since named *martellii*, which he had misidentified as *agilis* Kalt. and which is congeneric with it.

Article 70a of the Code applies to cases such as this. Hence the Commission by use of its plenary powers can designate *agilis* Kalt. as type of the genus *Eulachnus*.

The writer believes that such a move would be in the interest of stability since it was not until 1952 that the generic name *Protolachnus* replaced in part the name *Eulachnus*. Furthermore if the Commission were to declare Börner's declaration of *Eulachnus mingazzinii* Del Guercio as type of *Eulachnus* invalid there would be no confusion between *Eulachnus* and *Cinarella*.

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE FINANCIAL REPORT 1962

The Income and Expenditure Account for 1962 shows a balance on the year's working of £3,580, of which some £2,687 is due to sales of the Code.

A more nearly comparable balance for 1962 is £950 to be compared with £1,473, the balance in 1961.

Receipts from sales of the Bulletin are almost the same as in 1961, at £5,201, compared with £5,462.

Expenditure for 1962 is approximately the same as that for the proceeding year, but the much lower expenditure on the International Code during the year is matched by an increase in administrative expenses.

Continuing their review of the finances of the Trust, the Committee of Management, who last year were able to restore the Reserve to its original figure, have now found it possible to reduce the subscription price of the Bulletin to £15 from 1st January, 1964.

INTERNATIONAL TRUST FOR

Incorporated under the Companies

Balance Sheet—

1961 £	£		£	s.	d.	£	s.	d.
		Revenue Reserves—						
	—	General Reserve	10,000	0	0			
	2,858	"Official List" Suspense Account (per separate account)	2,979	17	7			
13,224	*10,366*	Income and Expenditure Account (per separate account)	3,945	19	7	16,925	17	2
1,200		*Special Donation unappropriated*				1,200	0	0
		Current Liabilities—						
1,255		Sundry Creditors				809	6	3
£15,679						£18,935	3	5

REPORT OF

We have obtained the information and explanations which we considered necessary, and in our opinion
(1) The above balance sheet and annexed income and expenditure account give a true and fair view of th
ended on that date.
(2) Proper books have been kept and the accounts are in agreement therewith and give, in the prescribe

Finsbury Circus House,
Blomfield Street,
London, E.C.2.
25th April, 1963

ZOOLOGICAL NOMENCLATURE

Act, 1929 (Limited by Guarantee)

31st December, 1962

1961 £	£	*1961*		£ s. d.	£ s. d.	£ s. d.
			Fixed Assets—			
			Office Equipment—			
	838		Book value at 1st July, 1948 and Additions since at cost		837 18 7	
	413		*Less* Depreciation and amount written off		455 18 7	
425						382 0 0
			Investments at cost—			
	2,078		£2,500 2½% Savings Bonds 1964/67		2,078 10 6	
	2,249		£2,500 3% Savings Bonds 1955/65..		2,248 16 9	
			(Market Value at date £4,719)			
			(Ditto £4,387)			
	4,327				4,327 7 3	
	3,000		County Borough of Preston 5½% Mortgage		— — –	
	—		Temporary Loan		3,000 0 0	
7,327						7,327 7 3
			Current Assets—	£ s. d.		
		1,570	Amounts due for Publications at valuation	1,100 0 0		
		—	Sundry Amounts prepaid	38 0 0		
		32	Income Tax Recoverable	37 15 7		
	1,602				1,175 15 7	
	6,325		Balances at Bank and Cash in Hand ..		10,050 0 7	
7,927						11,225 16 2
			(Note—The Stock of Publications has not been valued)			
£15,679						£18,935 3 5

FRANCIS J. GRIFFIN } Members of the Committee
N. D. RILEY } of Management

THE AUDITORS

state of the Trust's affairs at 31st December, 1962 and of the excess of income over expenditure for the year
manner, the information required by the Companies Act, 1948.

W. B. KEEN & CO.,
Chartered Accountants.

Income and Expenditure Account for

1961 £	£	EXPENDITURE	£	s.	d.	£	s.	d.
		Administration Expenses—						
	2,713	Salaries and National Insurance	3,172	1	0			
	585	Office Expenses	723	17	8			
	53	Audit Fee	52	10	0			
	3,351		3,948	8	8			
	50	*Less:* Proportion allocated to "Official List"	50	0	0			
3,301						3,898	8	8
47		Depreciation of Office Equipment				43	0	0
		Printing Publications—						
	1,210	International Code	8	5	9			
	1,671	Bulletin of Zoological Nomenclature	1,883	9	4			
2,881						1,891	15	1
6,229						5,833	3	9
1,473		Balance, being Excess of Income over Expenditure for the year, carried down				3,580	5	4
£ *7,702*						£9,413	9	1
—		Transfer to General Reserve				10,000	0	0
10,366		Balance carried forward to Balance Sheet				3,945	19	7
£10,366						£13,945	19	7

"Official List"

for the year ended

1961 £		£	s.	d.
50	Proportion of Administration Expenses	50	0	0
2,858	Balance carried forward to Balance Sheet	2,979	17	7
£ *2,908*		£3,029	17	7

the year ended 31st December, 1962

1961		INCOME						
£	£		£	s.	d.	£	s.	d.
		Sales of Publications—						
	784	International Code	2,687	19	1			
	581	Opinions and Declarations	616	18	2			
	5,462	Bulletin of Zoological Nomenclature	5,201	11	3			
	9	Copenhagen Decisions on Zoological Nomenclature	3	13	11			
6,836						8,510	2	5
14		Donations				13	17	10
303		Interest received on Investments (gross)				317	10	0
192		Interest on Bank Deposit				214	16	0
357		Grant from U.N.E.S.C.O. per International Union of Biological Sciences				357	2	10
£ 7,702						£9,413	9	1
8,893		Balance brought forward from 1961				10,365	14	3
1,473		Balance brought down				3,580	5	4
£10,366						£13,945	19	7

Suspense Account

31st December, 1962

1961 £		£	s.	d.
2,731	Balance brought forward from 1961	2,858	0	9
177	Sale of Publications	171	16	10
2,908		£3,029	17	7

COMMENTS ON THE PROPOSED VALIDATION OF *PSYLLA* GEOFFROY, 1762 AND SUPPRESSION OF *CHERMES* LINNAEUS, 1758, UNDER THE PLENARY POWERS (INSECTA, HEMIPTERA) Z.N.(S.) 1515

(see volume 20, pages 139–144)

By W. R. Richards (*Entomology Research Institute, Ottawa, Canada*)

It is felt that Dr. Eastop's proposal should be opposed on the grounds that when Geoffroy, 1762 was rejected for nomenclatorial purposes (Opinion 228) the confusion that once surrounded the use of *Psylla* and *Chermes* was effectively dispelled.

1. As long as Geoffroy, 1762 is not available then *Psylla* Geoffroy cannot be considered a replacement for *Chermes* Linnaeus and the fixation of *Chermes alni* Linnaeus as the type of *Psylla* Geoffroy by Latreille in 1810 did not also fix the type of *Chermes* Linnaeus as indicated under Dr. Eastop's points 8, 31 and 36. *Chermes* Linnaeus therefore remains available for the conifer lice with *Chermes abietis* Linnaeus as type species (fixed by Passerini, 1860) and with *Sacciphantes* Curtis as an objective synonym. *Chermes* Linnaeus (Chermidae) does not have to be replaced by *Adelges* Vallot (Adelgidae) as would be the case if the rules relating to types of replacement genera were applicable. It would seem essential that *Chermes* Linnaeus be retained for the conifer lice since 75 references were counted in *Zoo. Rec.* (1864–1961) in which *Chermes* Linnaeus had been used for the conifer lice as against 11 for *Adelges* Vallot. It is true that *Adelges* Vallot (Adelgidae) has won rather wide acceptance among recent biologists and one would hasten to support a view that considerable confusion would result if *Chermes* Linnaeus were not suppressed, but confusion from this source would seem unlikely since both the *Review* of *Applied Entomology* and the *Common Names of Insects Approved by the Entomological Society of America* reject *Adelges* (Adelgidae) in favour of *Chermes* (Chermidae). Also, it should be noted that *Chermes* (Chermidae) has been used for conifer lice for over 100 years whereas *Adelges* (Adelgidae) was practically unused until 1928.

2. Since *Psylla* Geoffroy is not available the history of *Psylla* (Psyllidae) seems uncomplicated as follows:
   (a) In 1796, Latreille described *Psylla* Geoffroy, included no species and did not expressly propose the genus as a replacement for *Chermes* Linnaeus and therefore a subsequent type designation for *Psylla* Latreille, 1796 does not also automatically fix the type of *Chermes* Linnaeus.
   (b) In 1802–1803, Latreille used *Psylla* without reference to Geoffroy or Linnaeus and placed two species in the genus (*Chermes alni* Linnaeus and *Chermes ficus* Linnaeus).
   (c) In 1810, Latreille fixed *Chermes alni* Linnaeus as type of *Psylla* Latreille again without reference to Geoffroy or Linnaeus.

As *Chermes alni* Linnaeus is considered to be a jumping plant louse Latreille therefore established *Psylla* (Psyllidae, Latreille, 1807) for the jumping plant lice. This is essentially the highly desirable result requested in Dr. Eastop's proposal except that the authorship of *Psylla* must be changed from Geoffroy to Latreille. It is true that at a later date Latreille plainly stated that his *Psylla* was an alternative name for *Chermes* Linnaeus, but since this was not expressly done when the genus was first used by Latreille, rules relating to types of replacement genera do not seem to apply [Article 67(i)]. It therefore does not seem necessary to suppress *Chermes* Linnaeus in order to validate *Psylla*.

3. Under point 38, Dr. Eastop listed five ways in which *Chermes* Linnaeus has been used. As long as Geoffroy, 1762 is not available only the third of these alternatives would appear to be valid, " *Chermes* L. to replace *Sacciphantes* Curtis, 1844 (type *Chermes abietis* Linnaeus) and Chermidae to replace Adelgidae ". This would seem to be desirable since as indicated in 1 above *Chermes* (Chermidae) has been more frequently used for the conifer lice than *Adelges* (Adelgidae).

It seems doubtful that a special ruling on *Psylla* Latreille and *Chermes* Linnaeus is necessary at this time. With the rejection of Geoffroy, 1762, the existing rules would seem to have the very positive effect of establishing *Chermes* (Chermidae) for the conifer lice and *Psylla* (Psyllidae) for the jumping plant lice. The confusion that once surrounded the use of *Psylla* and *Chermes* does not seem to exist as long as Geoffroy's names are not available and this seems more than adequately illustrated by Dr. Eastop's proposal. It would therefore seem advisable to take the following simple action.

(1) to place the following genus names on the Official List of Generic Names in Zoology:
  (a) *Psylla* Latreille, 1796 (gender: feminine), type-species, designated by Latreille, *Chermes alni* Linnaeus, 1758;
  (b) *Chermes* Linnaeus, 1758 (gender: masculine) type-species, designated by Passerini, 1860, *Chermes abietis* Linnaeus, 1758;
(2) to place the following names on the Official List of Family Group Names:
  (a) PSYLLIDAE Latreille, 1807 (type genus *Psylla* Latreille, 1896);
  (b) CHERMIDAE Koch, 1857 (type genus *Chermes*, Linnaeus, 1858);
(3) to place the following name on the Official Index of Rejected Family Group Names:
  (a) CHERMIDES Fallén, 1814 (type genus *Chermes* Linnaeus, 1758).

By A. W. Steffan (*Entomology Research Institute, Canada Department of Agriculture, Ottawa, Ontario, Canada*)

I recommend that the Commission approve the proposal of Dr. V. F. Eastop as by this action the nomenclature of the Psylloidea : Psyllidae as well as that of the Aphidoidea : Adelgidae will be stabilized.

In addition, I would like to offer some further comments on this proposal from the standpoint of a specialist in Adelgidae. No worker in this family of Aphidoidea has recently used the names *Chermes* and Chermidae. On the contrary, the generic name *Adelges* Vallot, 1836, and the family name Adelgidae (Herrich-Schaeffer in Koch, 1857) Annand, 1928, have been commonly adopted not by specialists only, but also in almost every reference work and text book of general and applied entomology.

The abandonment of *Adelges* and Adelgidae at this date would cause the greatest confusion.

It should be noted that many species of this group are known as dangerous pest insects in forestry. At least among experts in this field of economic entomology, any new alteration of names would give rise to strong opposition.

There may be the same situation in Psylloidea, and specialists of this group would, I expect, think likewise.

I therefore support Dr. Eastop's application in full. The solution proposed by him would be satisfactory to both specialists in Adelgidae and specialists in Psyllidae. It would preserve two family names and two generic names which are in common use now.

By Frej Ossiannilsson (*Institute of Plant Pathology and Entomology, Uppsala, Sweden*)

I wish to recommend that the Commission approve the proposal of Dr. Eastop. By this action much confusion both in the Psylloidea and in the Aphidoidea will be avoided.

I believe that practically all active specialists in the Psylloidea nowadays do agree that the generic name *Psylla* should be preferred to *Chermes*, since the former name has been far more generally used in our century for the generic concept in question than the latter. Also in applied entomology the names *Psylla* and Psyllidae are well established. On the other hand, *Chermes* has been used as the valid synonym of *Psylla* comparatively recently, also in some handbooks, e.g. Essig: " College Entomology " (1942), and Kloet & Hincks: " A Check List of British Insects " (1945). In the Zoological Record, the family name Chermidae is still being cited as a synonym of

Psyllidae. For this reason, the names *Chermes* and Chermidae should not be available in the Aphidoidea nor in any other group of animals, or much confusion will be inevitable. The names *Sacchiphantes*, *Adelges* and Adelgidae are now well established among specialists and in literature in the field of forest entomology, and therefore I unreservedly support Dr. Eastop's application.

By Leonard D. Tuthill (*University of Hawaii, Honolulu*)

As one who has been actively studying the Psyllidae for 26 years, I wish to register my strongest support for the recommendations for action by the International Commission made in the proposal. The considerable confusion which has existed for many years in the family names of two large and important groups of insects certainly should be resolved. The proposals made would validate the usages of almost all specialists in these groups over the last fifty years.

COMMENTS ON THE PROPOSED SUPPRESSION OF *TRITURUS LUTESCENS* RAFINESQUE, 1832. Z.N.(S.) 1516

(see volume 20, pages 210–211)

By Frank J. Kramer and Joseph T. Collins (*Ohio Valley Herpetological Laboratory, 6242 Day Road, Cincinnati 39, Ohio, U.S.A.*)

The purpose of these comments is to ask the Commission to consider the specific name *lutescens*, as published in the combination *Triturus lutescens* Rafinesque 1832, a *nomen dubium*; and not, as suggested in Z.N.(S.) 1516, a senior synonym of the form currently known as *Gyrinophilus porphyriticus duryi* (Weller) 1930. We agree with Z.N.(S.) 1516 when it requests that the name *lutescens*, as published in the aforementioned combination, be suppressed and placed on the Official Index of Rejected and Invalid Specific Names in Zoology, and there is nothing in these comments that might stand in the way of validating the name *duryi*, as published in the combination *Pseudotriton duryi* Weller 1930.

As we understand it, Article 49 of the present code invalidates the stated *purpose* of Z.N.(S.) 1516 and thereby renders action on that petition by the Commission unnecessary. Nevertheless, since it is the purpose of these comments to request a different treatment by the Commission of the name *lutescens*, as published in the combination *Triturus lutescens* Rafinesque 1832, we retain here as prefatory, points 2, 5, 6, and 7b–c (*sensu lato*) of Z.N.(S.) 1516, but take complete exception to points 3 and 7a, and partial exception to point 4 of said petition.

Point 3 of Z.N.(S.) 1516 is the paragraph with which we are most concerned since it is the purpose of these comments to bring to the attention of the Commission the original description of the species *lutescens*, as published in the combination *Triturus lutescens* Rafinesque 1832, so that it may deliberate on our request to consider the name *lutescens*, as published in the aforementioned combination, a *nomen dubium* and place the name on the Official Index of Rejected and Invalid Specific Names in Zoology.

Rafinesque's original description of *Triturus lutescens* (1832, *Atlantic Journal* 1 (3) : p.121) reads in toto:

> " *S. or Tr. lutescens* R. Entirely of a dirty pale yellow, without spots, tail equal to body. In West Kentucky in rocky limestone springs in the barrens or glades, 5 to 6 inches long."

The above description is a valid one and the name *lutescens* available. However, the description will simply not approach an identification of any of the presently known taxa of the Order Caudata which occur in the state of Kentucky. This is so even if the most liberal and widest possible latitude is allowed in applying the conditions of the original description of the species *lutescens* (*supra cit.*) to the known taxa in Kentucky.

Thus, we consider point 3 of Z.N.(S.) 1516 to be *in errore* and request that the name *lutescens*, as published in the combination *Triturus lutescens* Rafinesque 1832, be considered a *nomen dubium* and that it be placed on the Official Index of Rejected and Invalid Specific Names in Zoology. For the reasons stated below, and in refutation of point 3 of Z.N.(S.) 1516, we request that this action be taken rather than placing the name in the synonymy of a form which it *might* closely approach under the conditions of its description:

(1) There are no known types of Rafinesque's species *lutescens.*

(2) As a result of Mittleman's action as first revisor (*vide* Z.N.(S.) 1516, point 4) the name *lutescens* became, technically, a nomenclatural synonym of the form currently known as *Gyrinophilus porphyriticus duryi* (Weller). However, because Mittleman's revision incorrectly applied the name *lutescens* to an already clearly described taxon, the name *lutescens*, as published in the combination *Triturus lutescens* Rafinesque 1832, was not rendered a zoological synonym of the form currently known as *G. p. duryi* (Weller), and was in no way clarified by the first revisor, Mittleman. We here invoke Article 49 of the present code.

(3) The name *lutescens* cannot apply to the form currently known as *Gyrinophilus porphyriticus duryi* (Weller) for:

(a) Rafinesque's original description of the species *lutescens* (*supra cit*) characterizes the species as " without spots ", and " 5 to 6 inches long ". A survey of the literature shows that there are no known examples of the form currently known as *G. p. duryi* (Weller) of a size " 5 to 6 inches long " that are " without spots ". Indeed, the form currently known as *G. p. duryi* (Weller) has as one of the conditions of its original description, as published in the combination *Pseudotriton duryi* Weller 1930(*Proc. Jr. Soc. Nat. Sci.* Cincinnati, 1 (5–6 : p. 6–7) " a few small black spots sparsely and irregularly scattered over the dorsal surface . . . an irregular double row of these spots on the sides ". Personal experience with this form indicates that, while individuals may be sometimes very sparsely spotted, in no case was an entirely unspotted specimen of any size observed from any part of the range.

(b) The original description of the species *lutescens* (*supra cit.*) characterizes it as " entirely of a dirty pale yellow ". Again, at the size of " 5 to 6 inches long " there are no known examples of the form currently known as *G. p. duryi* (Weller) that fit this condition of the description. The known range of variation in color of *G. p. duryi* (Weller) does not include examples approaching the above mentioned color. (Though branchiate specimens of *G. p. duryi* (Weller) are of a different color than adults, it cannot be argued that Rafinesque applied the name *lutescens* to larval specimens since a " 5 to 6 " inch long individual of *duryi* would not only be an adult, but would approach the maximum size for the subspecies).

(c) The geographic range of the species *lutescens*, as published in the combination *Triturus lutescens* Rafinesque 1832, is stated in the original description (*op. cit.*) as " In West Kentucky in rocky limestone springs in the barrens or glades ". The key phrases here are " West Kentucky " and, most importantly, " the barrens ". The phrase " the barrens " is not an obscure one. There are definitely delimited ecological and botanical areas known as the barrens which are confined entirely to western Kentucky and they have been precisely defined and mapped by Transeau (1935, *Ecology* 16 (3) : 423–437). Both the barrens and western Kentucky lie entirely outside the known range of *G. p. duryi* (Weller), and therefore Rafinesque's geographical range, as stated in the original description of *lutescens*, cannot apply to the form currently known as *G. p. duryi* (Weller).

(d) Another condition of the description of the species *lutescens* (*supra cit.*) is " tail equal to the body ". The original description of the form currently known as *G. p. duryi* (Weller) (*supra cit.*) states, in reference to *duryi*, that " the tail is . . . considerably less in length than the distance from head to groin ".

Since the name *lutescens* has been confused thus far with only one taxon, we do not feel it necessary critically to eliminate any other taxon with which the name *lutescens* might be compared and confused since, as we have already stated, it is our opinion that the original description of Rafinesque's species *lutescens* cannot apply with any certainty to any presently known taxon of the Order Caudata in the state of Kentucky. (Indeed, even if there is an undiscovered form in the barrens of western Kentucky which fits the conditions of Rafinesque's species *lutescens*, the *nomen oblitum* rule would preclude applying the name *lutescens* to it). Additionally, we feel it is unnecessary to consider the name *lutescens* a *species inquirendum*, and feel it should not remain *incertae sedis*.

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

No useful purpose would be served in rejecting the proposal for suppression of *lutescens*. I am convinced that the name is based upon examples of a population that cannot be distinguished nomenclaturally from the population that included the holotype of *duryi*. It is clearly desirable to prevent substitution of a long forgotten, little-used and very briefly characterized name for a clearly-understood and almost universally adopted name. Furthermore if in the future the populations now referred to *duryi* are indeed found to be taxonomically separable, at least in part, the description of *lutescens* is so brief as to render application of the name highly controversial; it could well be considered a *nomen dubium* even now, and almost certainly would if more obscure criteria of distinction were to be utilized. The most expedient procedure is clearly to rid the premises of an already useless and troublesome name that could become even more vexatious in the future. As long as the name continues to be available, systematic studies on the involved populations will to a certain degree be perverted into channels pertaining to application of that name rather than the more basic considerations of what taxonomic populations really exist.

COMMENT ON THE PROPOSAL TO SUBSTITUTE THE GENERIC NAME *DRYADOPHIS* STUART, 1939, FOR *MASTIGODRYAS* AMARAL, 1934.

Z.N.(S.) 1533

(see volume 20, page 230)

By Afranio do Amaral (*Institute Butantan, S. Paulo, Brazil*)

Hobart M. Smith has just requested the Commission to suppress the generic name *Mastigodryas* Amaral, 1934, in favour of *Dryadophis* Stuart, 1939 on the assumption that the type (*danieli*) of the former is a specimen of *Coluber boddaertii* Sentzen.

Unfortunately, I cannot entirely agree with my honourable colleague's proposal, for the following reasons:

1. From a bibliographic standpoint, *Mastigodryas*, to define a tree-snake or whip-dryad (from Gr. μάστιξ,-γος, whip + δρύας, a dryad or wood-nymph), was described in 1934 and it is not yet 50 years old. It was published in a respectable and widely circulated journal (*Mem. Inst. Butantan* 1934, VIII : 157–159), in strict conformity with every requirement for validity as set forth in Articles 8, 11 and 13 of the Code. The article in which it appeared bears not only an abstract in English but also is classified according to Dewey's system so as to make it easier for foreigners not versed in Portuguese to comprehend at least its meaning.

2. From a herpetological point of view, the type (*danieli*), being easily distinguishable from *C. boddaertii* in having a rather short tail (C. 70 p. vs. 101–112 p.) and dorsal scales without apical pits, cannot be included in the genus *Dryadophis* Stuart, 1939 (a substitute name for *Eudryas* Fitzinger, 1843, as revived by Stuart in 1932) in all the species of which the dorsal scales bear 2 apical pits and the number of abdominal scutes (ventrals + subcaudals) is much higher (285–311) than that in *danieli* (257).

Among the various groups of Colubrines formerly included by Boulenger (1894) in the genus *Drymobius*, those bearing smooth dorsal scales may be easily told apart from a generic standpoint, thus:

1. Anal single .... *Drymoluber* Amaral, 1929
2. Anal divided 3

3a. Dorsals without apical pits; tail not long (C. 70 p.).... *Mastigodryas* Amaral, 1934
3b. Dorsals with apical pits; tail long (C. 79–136).......... *Dryadophis* Stuart, 1939

By keeping apart the genus *Mastigodryas* Amaral, 1934, from *Dryadophis* Stuart, 1939, as we must on taxonomic grounds, we can better serve science. At the same time, by upholding but the main idea lying behind Prof. H. M. Smith's proposal, can we do justice to the merit of our colleague L. C. Stuart in devoting himself for so long a time to the revisionary study of such an important group of Neotropical ophidians.

OPINION 687

SIGARA ATOMARIA ILLIGER, 1807 (INSECTA, HEMIPTERA): SUPPRESSED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the specific name *atomaria* Illiger, 1807, as published in the binomen *Sigara atomaria*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The specific name *affinis* Leach, 1817, as published in the binomen *Corixa affinis*, is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1945.

(3) The specific name *atomaria* Illiger, 1807, as published in the binomen *Sigara atomaria* (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 781.

HISTORY OF THE CASE (Z.N.(S.) 1482)

The present case was submitted to the office of the Commission by Dr. T. Jaczewski in May 1961. An application was sent to the printer on 13 July 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 48–50. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. E. Wagner.

DECISION OF THE COMMISSION

On 18 January 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)7 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 50. At the close of the prescribed voting period on 18 April 1963 the state of the voting was as follows:

Affirmative votes—twenty-four (24); received in the following order: China, Hering, Holthuis, Jaczewski, Bonnet, Vokes, Obruchev, Key, Riley, Mayr, Uchida, Lemche, Alvarado, Bradley, Stoll, do Amaral, Hemming, Binder, Brinck, Boschma, Tortonese, Mertens, Kühnelt, Evans.

Negative votes—none (0).

On Leave of Absence—one (1): Prantl.

Commissioners Munroe, Borchsenius and Miller returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for specific names placed on the Official List and Index by the Ruling given in the present Opinion:

affinis, Corixa, Leach, 1817, *Trans. linn. Soc. Lond.* **12** (1) : 18
atomaria, Sigara, Illiger, 1807, *Fauna Etrusca* **2** : 354

CERTIFICATE

I certify that the votes cast on Voting Paper (63)7 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 687.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
30 *April* 1963

OPINION 688

DROMIA WEBER, 1795 (CRUSTACEA, DECAPODA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Dromia* Weber, 1795, made prior to the present Ruling are hereby set aside and the nominal species *Cancer personatus* Linnaeus, 1758, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Dorippe* Weber, 1795 (gender : feminine), type-species, by designation by Latreille, 1810, *Cancer quadridens* Fabricius, 1793 (Name No. 1567);

(b) *Dromia* Weber, 1795 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Cancer personatus* Linnaeus, 1758 (Name No. 1568);

(c) *Dromidiopsis* Borradaile, 1900 (gender : feminine), type-species, by monotypy, *Dromia australiensis* Haswell, 1882 (Name No. 1569);

(d) *Notopus* De Haan, [1841] (gender : masculine), type-species, by monotypy, *Cancer dorsipes* Linnaeus, 1758 (Name No. 1570).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *australiensis* Haswell, 1882, as published in the binomen *Dromia australiensis* (type-species of *Dromidiopsis* Borradaile, 1900) (Name No. 1946);

(b) *dormia* Linnaeus, 1763, as published in the binomen *Cancer dormia* (Name No. 1947);

(c) *dorsipes* Linnaeus, 1758, as published in the binomen *Cancer dorsipes* (type-species of *Notopus* De Haan, [1841]) (Name No. 1948);

(d) *frascone* Herbst, 1785, as published in the binomen *Cancer frascone* (Name No. 1949);

(e) *lanatus* Linnaeus, 1767, as published in the binomen *Cancer lanatus* (Name No. 1950);

(f) *personatus* Linnaeus, 1758, as published in the binomen *Cancer personatus*, as defined by the neotype designated by Holthuis, 1962 (type-species of *Dromia* Weber, 1795) (Name No. 1951).

(4) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) DORIPPIDAE (correction of DORIPPIDEA) De Haan, [1841] (type-genus *Dorippe* Weber, 1795) (Name No. 355);

(b) DROMIIDAE (correction of DROMIACEA) De Haan, [1833] (type-genus *Dromia* Weber, 1795) (Name No. 356).

(5) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Dorippe* Fabricius, 1798 (a junior homonym and a junior objective synonym of *Dorippe* Weber, 1795) (Name No. 1666);

Bull. zool. Nomencl., Vol. 21, Part 1. March 1964.

(b) *Dromia* Fabricius, 1798 (a junior homonym of *Dromia* Weber, 1795) (Name No. 1667);
(c) *Notogastropus* Vosmaer, 1763 (a name published in a non-binominal work) (Name No. 1668);
(d) *Noto-gastropus* Vosmaer, 1765 (a name published in a non-binominal work) (Name No. 1669).

(6) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *caputmortuum* H. Milne Edwards, 1837, as published in the binomen *Dromia caputmortuum* (a junior secondary homonym of *caputmortuum*, *Cancer*, Linnaeus, 1767) (Name No. 782);
(b) *dromia* Fabricius, 1781, as published in the binomen *Cancer dromia* (an incorrect spelling for *dormia*, *Cancer*, Linnaeus, 1763) (Name No. 783).

(7) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) DORIPPIDEA De Haan, [1841] (type-genus *Dorippe* Weber, 1795) (an incorrect original spelling for DORIPPIDAE) (Name No. 391);
(b) DORIPPIENS H. Milne Edwards, 1837 (type-genus *Dorippe* Weber, 1795) (a vernacular name) (Name No. 392);
(c) DROMIACEA De Haan, [1833] (type-genus *Dromia* Weber, 1795) (an incorrect original spelling for DROMIIDAE) (Name No. 393);
(d) DROMIENS H. Milne Edwards, 1837 (type-genus *Dromia* Weber, 1795) (a vernacular name) (Name No. 394).

HISTORY OF THE CASE (Z.N.(S.) 1488)

The present case was submitted to the office of the Commission by Dr. L. B. Holthuis in June 1961. Dr. Holthuis' application was sent to the printer on 13 July 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 48–57. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). No objection was received.

DECISION OF THE COMMISSION

On 18 January 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)8 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 55–57. At the close of the prescribed voting period on 18 April 1963 the state of the voting was as follows:

Affirmative votes—twenty-four (24), received in the following order: China, Hering, Holthuis, Bonnet, Jaczewski, Vokes, Obruchev, Key, Riley, Mayr, Uchida, Lemche, Alvarado, Bradley, Stoll, do Amaral, Hemming, Binder, Brinck, Boschma, Tortonese, Mertens, Kühnelt, Evans.

Negative votes—none (0).

On Leave of Absence—one (1): Prantl.

Commissioners Munroe, Borchsenius and Miller returned late affirmative votes. Three Commissioners made the following exceptions and comments in returning their affirmative votes:

Dr. T. Jaczewski (4.ii.63): I vote for, with the exception of points (5) (a), (c) and (d), and (7) (d). (5) (a)—In my opinion it is superfluous to place on the Official Index junior homonyms which are at the same time junior objective synonyms. They are clearly invalid under the Code. (5) (c) and (d)—It would be simpler, in my opinion to place the two publications of Vosmaer, 1763 and 1765, on the Official Index of Rejected Works. (7) (d)—I consider it superfluous to place on the Official Index a vernacular name which is a junior objective synonym of an earlier valid name (even with an incorrect original spelling).

Prof. J. Chester Bradley (4.iii.63): If *Dorippe* Fabricius is a junior objective synonym of *Dorippe* Weber, it is not to be rejected as a homonym, but is merely a later correct usage of Weber's name, without cause for rejection.

Dr. E. Tortonese (8.iv.63): I accept Holthuis' proposal, but I think that to change the specific name of a common Mediterranean crab, known as *Dromia vulgaris*, is somewhat regrettable.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

australiensis, *Dromia*, Haswell, 1882, *Proc. linn. Soc. N.S. Wales* **6** (4) : 755
caputmortuum, *Dromia*, H. Milne Edwards, 1837, Roret's Suite à Buffon, *Hist. nat. Crust.* **2** : 178
Dorippe Fabricius, 1798, *Suppl. Ent. syst.* : 322, 361
Dorippe Weber, 1795, *Nomencl. ent. Syst. Fabr.* : 93
DORIPPIDAE De Haan, [1841], *in* Siebold, *Fauna japon.* (Crust.) (5) : 120
DORIPPIDEA De Haan, [1841], an incorrect original spelling for DORIPPIDAE q.v.
DORIPPIENS H. Milne Edwards, 1837, Roret's Suite à Buffon, *Hist. nat. Crust.* **2** : 151
dormia, *Cancer*, Linnaeus, 1763, *Amoen. Acad.* **6** : 431
dorsipes, *Cancer*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 630
Dromia Fabricius, 1798, *Suppl. Ent. syst.* : 320, 359
Dromia Weber, 1795, *Nomencl. ent. Syst. Fabr.* : 92
dromia, *Cancer*, Fabricius, 1781, *Spec. Ins.* **1** : 501
DROMIACEA De Haan, 1833, an incorrect original spelling for DROMIIDAE q.v.
Dromidiopsis Borradaile, 1900, *Proc. zool. Soc. Lond.* **1900** : 572
DROMIENS H. Milne Edwards, 1837, Roret's Suite à Buffon, *Hist. nat. Crust.* **2** : 168
DROMIIDAE De Haan, [1833], *in* Siebold, *Fauna japon.* (Crust.) (1): ix
frascone, *Cancer*, Herbst, 1785, *Versuch Naturgesch. Krabben Krebse* **1** (6) : 192
lanatus, *Cancer*, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1** : 1044
Notogastropus Vosmaer, 1763, *Mém. Math. Phys. Acad. Sci. Paris* **4** : 635
Noto-gastropus Vosmaer, 1765, *Uitgez. Verh. Werken Soc. Weetensch. Europ.* **10** : 119
Notopus De Haan, [1841], *in* Siebold, *Fauna japon.* (Crust.) (5) : 137, 138, 139
personatus, *Cancer*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 628

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling:

For *Dorippe* Weber, 1795 : Latreille, 1810, *Consid. gén. Anim. Crust. Arachn. Ins.*: 96, 442

The following is the original reference for the designation of a neotype for a nominal species concerned in the present Ruling:

For *Cancer personatus* Linnaeus, 1758 : Holthuis, 1962, *Bull. zool. Nomencl.* **19** : 53, pl. 3

CERTIFICATE

I certify that the votes cast on Voting Paper (63)8 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission is truly recorded in the present Opinion No. 688.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
14 *May* 1963

COMMENT ON THE PROPOSED DESIGNATION OF A TYPE-SPECIES FOR *CTENOPHTHALMUS* KOLENATI, 1856 Z.N.(S.) 1523

(see volume 20, pages 217–223)

By Robert Traub (*Department of Microbiology, University of Maryland, Baltimore, Maryland, U.S.A.*)

Please regard this letter as an expression of complete and whole-hearted agreement with the recommendations of G. H. E. Hopkins regarding *Ctenophthalmus* Kolenati and its proposed retention under the plenary powers and related matters. If the International Commission on Zoological Nomenclature takes the action requested by Mr. Hopkins, the results would be a tremendous boon to systematists studying Siphonaptera.

I should like to take advantage of this occasion to express my gratitude to Mr. Hopkins for having clarified a series of extremely involved issues, and to the authorities of the Commission for making it possible to take remedial and preventive action in cases such as this.

OPINION 689

CORYSTES LATREILLE, [1802–1803] (CRUSTACEA, DECAPODA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Euryala* Weber, 1795, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Corystes* Latreille, [1802–1803] (gender : masculine), type-species, by monotypy, *Hippa dentata* Fabricius, 1793 (a junior objective synonym of *Cancer cassivelaunus* Pennant, 1777) is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1571.

(3) The specific name *cassivelaunus* Pennant, 1777, as published in the binomen *Cancer cassivelaunus* (type-species of *Corystes* Latreille, [1802–1803]) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1952.

(4) The family name CORYSTIDAE Samouelle, 1819 (type-genus *Corystes* Latreille, [1802–1803]) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 357.

(5) The generic name *Euryala* Weber, 1795, (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1670.

(6) The specific name *dentata* Fabricius, 1793, as published in the binomen *Hippa dentata* (a junior objective synonym of *cassivelaunus*, *Cancer*, Pennant, 1777) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 784.

(7) The family name EURYALIDAE Rathbun, 1910 (type-genus *Euryala* Weber, 1795) (invalid because the name of the type-genus has been suppressed under the plenary powers) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name No. 395.

HISTORY OF THE CASE (Z.N.(S.) 1486)

The present case was submitted to the office of the Commission by Dr. L. B. Holthuis in June 1961. Dr. Holthuis' application was sent to the printer on 13 July 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 61–62. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). No objection was received.

DECISION OF THE COMMISSION

On 5 March 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)9 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 62. At the close of the prescribed voting period on 5 June 1963 the state of the voting was as follows:

Affirmative votes—twenty-four (24), received in the following order: China, Mayr, Holthuis, Hering, Hemming, Vokes, Munroe, Lemche, Binder, Stoll, Brinck, Obruchev, Key, Alvarado, Jaczewski, Uchida, Boschma, do Amaral, Riley, Mertens, Borchsenius, Tortonese, Bonnet, Kühnelt.

Negative votes—none (0).

On Leave of Absence—two (2): Bradley, Prantl.

Voting Papers not returned—one (1): Evans.

Commissioner Miller returned a late affirmative vote.

Original References

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

cassivelaunus, *Cancer*, Pennant, 1777, *Brit. Zool.* (ed. 4) **4** : 6
Corystes Latreille, [1802–1803], *Hist. nat. gén. partic. Crust. Ins.* **3** : 27
CORYSTIDAE Samouelle, 1819, *Entom. useful Compendium* : 82
dentata, *Hippa*, Fabricius, 1793, *Ent. syst.* **2** : 475
Euryala Weber, 1795, *Nomencl. ent. Syst. Fabr.* : 94
EURYALIDAE Rathbun, 1910, *Proc. U.S. nat. Mus.* **38** : 576

CERTIFICATE

I certify that the votes cast on Voting Paper (63)9 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission is truly recorded in the present Opinion No. 689.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
10 *June* 1963

OPINION 690

CERATIOCARIS M'COY, 1849 (CRUSTACEA, ARCHAEOSTRACA): ADDED TO THE OFFICIAL LIST OF GENERIC NAMES

RULING.—(1) The generic name *Ceratiocaris* M'Coy, 1849 (gender : feminine), type-species, by designation by Miller, 1889, *Ceratiocaris solenoides* M'Coy, 1849, (to be given precedence over *Leptocheles* M'Coy, 1849, by the action of Barrande, 1853, acting as first reviser) is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1572.

(2) The specific name *solenoides* M'Coy, 1849, as published in the binomen *Ceratiocaris solenoides* (type-species of *Ceratiocaris* M'Coy, 1849) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1953.

(3) The family name CERATIOCARIDIDAE (correction of CERATIOCARIDAE) Salter, 1860 (type-genus *Ceratiocaris* M'Coy, 1849) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 358.

(4) The family name CERATIOCARIDAE Salter, 1860 (type-genus *Ceratiocaris* M'Coy, 1849) (an incorrect original spelling for CERATIOCARIDIDAE) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name No. 396.

HISTORY OF THE CASE (Z.N.(S.) 1489)

The present case was submitted to the office of the Commission by Dr. W. D. Ian Rolfe in June 1961. Dr. Rolfe's application was sent to the printer on 13 July 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 63–64. No objection was received.

DECISION OF THE COMMISSION

On 5 March 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)10 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 63. At the close of the prescribed voting period on 5 June 1963 the state of the voting was as follows:

Affirmative votes—twenty-four (24), received in the following order: China, Mayr, Holthuis, Hering, Hemming, Vokes, Munroe, Lemche, Binder, Stoll, Brinck, Obruchev, Key, Alvarado, Jaczewski, Uchida, Boschma, do Amaral, Riley, Mertens, Borchsenius, Tortonese, Bonnet, Kühnelt.

Negative votes—none (0).

On Leave of Absence—two (2): Bradley, Prantl.

Voting Papers not returned—one (1): Evans.

Commissioner Miller returned a late affirmative vote.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Index by the Ruling given in the present Opinion:

CERATIOCARIDAE Salter, 1860, an invalid original spelling for CERATIOCARIDIDAE q.v.

CERATIOCARIDIDAE Salter, 1860, *Ann. Mag. nat. Hist.* (3) **5** : 162
Ceratiocaris M'Coy, 1849, *Ann. Mag. nat. Hist.* (2) **4** : 412
solenoides, *Ceratiocaris*, M'Coy, 1849, *Ann. Mag. nat. Hist.* (2) **4** : 413

The following is the original reference to the first reviser for a genus concerned in the present Ruling:

For *Ceratiocaris* M'Coy, 1849 : Barrande, 1853, *Neue Jahrb. Min.*, Geol. Palaont. **1853** : 341–342

CERTIFICATE

I certify that the votes cast on Voting Paper (63)10 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 690.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
11 *June* 1963

OPINION 691

CYRNUS STEPHENS, 1836 (INSECTA, TRICHOPTERA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Cyrnus* Stephens, 1836, made prior to the present Ruling, are hereby set aside and the nominal species *Cyrnus unipunctatus* Stephens, 1836, is hereby designated to be the type-species of that genus.

(2) The generic name *Cyrnus* Stephens, 1836 (gender : masculine), type-species, by designation under the plenary powers in (1) above, *Cyrnus unipunctatus* Stephens, 1836, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1573.

(3) The specific name *trimaculatus* Curtis, 1834, as published in the binomen *Philopotamus trimaculatus*, is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1954.

HISTORY OF THE CASE (Z.N.(S.) 1491)

The present case was submitted to the office of the Commission in July 1961 by Dr. F. C. J. Fischer. Dr. Fischer's application was sent to the printer on 22 August 1961 and was published on 23 March 1962 in *Bull. zool. Nomencl.* **19** : 117. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Prof. L. W. Grensted, Mr. D. E. Kimmins and Dr. Glen B. Wiggins.

DECISION OF THE COMMISSION

On 5 March 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)12 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 117. At the close of the prescribed voting period on 5 June 1963 the state of the voting was as follows:

Affirmative votes—twenty-four (24), received in the following order: China, Mayr, Holthuis, Hering, Hemming, Vokes, Munroe, Lemche, Binder, Stoll, Brinck, Obruchev, Key, Alvarado, Uchida, Boschma, do Amaral, Riley, Mertens, Borchsenius, Jaczewski, Tortonese, Bonnet, Kühnelt.

Negative votes—none (0).

On Leave of Absence—two (2): Bradley, Prantl.

Voting Paper not returned—one (1): Evans.

Commissioner Miller returned a late affirmative vote. In returning his vote Commissioner Obruchev made the following comment: "Isn't it a little strange that as a type-species is designated *Cyrnus unipunctatus*, but on the Official List is placed another species, *trimaculatus*, 'the oldest available name for the type-species of *Cyrnus*', of which nothing has been said previously? I vote against para. 3."

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists by the Ruling given in the present Opinion:

Cyrnus Stephens, 1836, *Ill. Brit. Ent.* Mand. **6** : 174
trimaculatus, Philopotamus, Curtis, 1834, *Lond. Edinb. phil. Mag.* (3) **4** (21) : 213

CERTIFICATE

I certify that the votes cast on Voting Paper (63)12 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 691.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
11 *June* 1963

OPINION 692

QUINQUELOCULINA D'ORBIGNY, 1826 (FORAMINIFERA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following generic names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) *Frumentarium* Fichtel & Moll, 1798;

(b) *Pollontes* Monfort, 1808.

(2) The generic name *Quinqueloculina* d'Orbigny, 1826 (gender : feminine), type-species by designation by W. K. Parker and T. R. Jones, 1859, *Serpula seminulum* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1574.

(3) The specific name *seminulum* Linnaeus, 1758, as published in the binomen *Serpula seminulum*, as defined by the neotype designated by A. R. Loeblich and H. Tappan, 1962 (type-species of *Quinqueloculina* d'Orbigny, 1826) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1955.

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Frumentarium* Fichtel & Moll, 1798 (as suppressed under the plenary powers in (1) above) (Name No. 1671);

(b) *Pollontes* Montfort, 1808 (as suppressed under the plenary powers in (1) above) (Name No. 1672).

(5) The family-group name QUINQUELOCULININAE Cushman, 1817 (type-genus *Quinqueloculina* d'Orbigny, 1826) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 359.

HISTORY OF THE CASE (Z.N.(S.) 1494)

The present case was submitted to the office of the Commission by Dr. Alfred R. Loeblich and Dr. Helen Tappan in July 1961. The application was sent to the printer on 22 August 1961 and was published on 23 March 1962 in *Bull. zool. Nomencl.* **19** : 118–124. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). No objection was received.

DECISION OF THE COMMISSION

On 5 March 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)13 either for or against the proposals published in *Bull. zool. Nomencl.* **19** : 123–124. At the close of the prescribed voting period on 5 June 1963 the state of the voting was as follows:

Affirmative votes—twenty-four (24), received in the following order: China, Mayr, Holthuis, Hering, Hemming, Vokes, Munroe, Lemche, Binder, Stoll, Brinck, Obruchev, Key, Alvarado, Jaczewski, Uchida, Boschma, do Amaral, Riley, Mertens, Borchsenius, Tortonese, Bonnet, Kühnelt.

Negative votes—none (0).

On Leave of Absence—two (2): Bradley, Prantl.

Voting Papers not returned—one (1): Evans.

Commissioner Miller returned a late affirmative vote.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official Lists and Index by the Ruling given in the present Opinion:

Frumentarium Fichtel & Moll, 1798, *Testacea microscopica aliaque minuta ex generibus Argonauta et Nautilus* [1803 reprint : 16]

Pollontes Montfort, 1808, *Conch. syst. Class. méth. Coquilles* **1** : 246

Quinqueloculina d'Orbigny, 1826, *Ann. Sci. nat.*, Paris **7** (27) : 301

QUINQUELOCULININAE Cushman, 1817, *Bull. U.S. Nat. Mus.* **71** (6) : 41

seminulum, *Serpula*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 786

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling:

For *Quinqueloculina* d'Orbigny, 1826 : W. K. Parker & T. R. Jones, 1859, *Ann. Mag. nat. Hist.* (3) **3** : 480

The following is the original reference for the designation of a neotype for a species concerned in the present Ruling:

For *Serpula seminulum* Linnaeus, 1758 : A. R. Leoblich & H. Tappan, 1962, *Bull. zool. Nomencl.* **19** : 123

CERTIFICATE

I certify that the votes cast on Voting Paper (63)13 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 692.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
11 *June* 1963

OPINION 693

LEPIDOPA STIMPSON, 1858 (CRUSTACEA, DECAPODA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Lepidopa* Stimpson, 1858, made prior to the present Ruling, are hereby set aside and the nominal species *Lepidopa venusta* Stimpson, 1859, is hereby designated to be the type of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Lepidopa* Stimpson, 1858 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Lepidopa venusta* Stimpson, 1859 (Name No. 1575);

(b) *Lepidomysis* Clarke, 1961 (gender : feminine), type-species, by monotypy, *Lepidophthalmus servatus* Fage, 1924 (Name No. 1576);

(c) *Thia* Leach, 1815 (gender : feminine), type-species, by monotypy, *Thia polita* Leach, 1815 (Name No. 1577).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *scutellata* Fabricius, 1793, as published in the binomen *Hippa scutellata*, as defined by the neotype designated by L. B. Holthuis, 1962 (Name No. 1956);

(b) *servatus* Fage, 1924, as published in the binomen *Lepidophthalmus servatus* (type-species of *Lepidomysis* Clarke, 1961) (Name No. 1957);

(c) *venusta* Stimpson, 1859, as published in the binomen *Lepidopa venusta* (type-species of *Lepidopa* Stimpson, 1858) (Name No. 1958).

(4) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) LEPIDOMYSIDAE Clarke, 1961 (type-genus *Lepidomysis* Clarke, 1961) (Name No. 360);

(b) THIIDAE Dana, 1862 (type-genus *Thia* Leach, 1815) (Name No. 361).

(5) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Lepidophthalmus* Fage, 1924 (a junior homonym of *Lepidophthalmus* Holmes, 1904) (Name No. 1673);

(b) *Lepidops* Stimpson, 1860 (an incorrect spelling for *Lepidopa* Stimpson, 1858) (Name No. 1674);

(c) *Lepidops* Miers, 1878 (an unjustified emendation of *Lepidopa* Stimpson, 1858) (Name No. 1675);

(d) *Lepidops* Zimmer, 1927 (a junior homonym of *Lepidops* Miers, 1878) (Name No. 1676).

(6) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

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(a) LEPIDOPHTHALMIDAE Fage, 1924 (type-genus *Lepidophthalmus* Fage, 1924) (a name based on a junior homonym) (Name No. 397);
(b) LEPIDOPIDAE Stammer, 1936 (type-genus *Lepidops* Zimmer, 1927) (a name based on a junior homonym) (Name No. 398).

HISTORY OF THE CASE (Z.N.(S.) 1495)

The present case was submitted to the office of the Commission by Dr. L. B. Holthuis in August 1961. Dr. Holthuis' application was sent to the printer on 22 August 1961 and was published on 23 March 1962 in *Bull. zool. Nomencl.* **19** : 125–128. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). The proposals were supported by Dr. Fenner A. Chace and Dr. Janet Haig (*Bull. zool. Nomencl.* **19** : 344).

DECISION OF THE COMMISSION

On 5 March 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)14 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 127–128. At the close of the prescribed voting period on 5 June 1963 the state of the voting was as follows:

Affirmative votes—twenty-four (24), received in the following order: China, Mayr, Holthuis, Hering, Hemming, Vokes, Munroe, Lemche, Binder, Sotll, Brinck, Obruchev, Key, Alvarado, Jaczewski, Uchida, Boschma, do Amaral, Riley, Mertens, Borchsenius, Tortonese, Bonnet, Kühnelt.

Negative votes—none (0).

On Leave of Absence—two (2): Bradley, Prantl.

Voting Papers not returned—one (1): Evans.

Commissioner Miller returned a late affirmative vote.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official Lists and Indexes by the Ruling given in the present Opinion:

LEPIDOMYSIDAE Clarke, 1961, *Crustaceana* **2** (3) : 252
Lepidomysis Clarke, 1961, *Crustaceana* **2** (3) : 251, 252
Lepidopa Stimpson, 1858, *Proc. Acad. nat. Sci. Philad.* **1858** : 230
LEPIDOPHTHALMIDAE Fage, 1924, *C. R. Acad. Sci.*, Paris **178** : 2129
Lepidophthalmus Fage, 1924, *C. R. Acad. Sci.*, Paris **178** : 2128
LEPIDOPIDAE Stammer, 1936, *Zool. Jahrb.* (Syst.) **68** : 54
Lepidops Miers, 1878, *J. Linn. Soc. Lond.* (Zool.) **14** : 331
Lepidops Stimpson, 1860, *Ann. Lyc. nat. Hist. New York* **7** : 113
Lepidops Zimmer, 1927, *in.* Kükenthal & Krumbach, *Handb. Zool.* **3** (1) : 644
scutellata, Hippa, Fabricius, 1793, *Ent. syst.* **2** : 474
servatus, Lepidophthalmus, Fage, 1924, *C. R. Acad. Sci.*, Paris **178** : 2128
Thia Leach, 1815, *Trans. Linn. Soc. Lond.* **11** (2) : 213
THIIDAE Dana, 1852, *Proc. Acad. nat. Sci. Philad.* **6** : 86
venusta, Lepidopa, Stimpson, 1859, *Ann. Lyc. nat. Hist. New York* **7** : 79

The following is the original reference for the designation of a neotype for a nominal species concerned in the present Ruling:

For *Hippa scutellata* Fabricius, 1793 : L. B. Holthuis, 1962, *Bull. zool. Nomencl.* **19** : 126, pl. 4

CERTIFICATE

I certify that the votes cast on Voting Paper (63)14 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 693.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
11 *June* 1963

OPINION 694

CYNIPS CARICAE LINNAEUS, 1762 (INSECTA, HYMENOPTERA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the specific name *caricae* Linnaeus *in* Hasselquist, 1762, as published in the binomen *Cynips caricae*, is hereby validated.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Philotrypesis* Förster, 1878 (gender : feminine), type-species, by original designation, *Philotrypesis longicauda* Förster, 1878 (Name No. 1578);

(b) *Blastophaga* Gravenhorst, 1829 (gender : feminine), type-species, by monotypy, *Blastophaga grossorum* Gravenhorst, 1829 (Name No. 1579).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *caricae* Linnaeus, 1762, as published in the binomen *Cynips caricae* (Name No. 1959);

(b) *psenes* Linnaeus, 1758, as published in the binomen *Cynips psenes* (Name No. 1960).

HISTORY OF THE CASE (Z.N.(S.) 1047)

The present case was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 160–163 in the form of a Report prepared by Dr. W. E. China, Assistant Secretary to the Commission. A full history of the case prior to publication is given in that Report. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. No objection was received.

DECISION OF THE COMMISSION

On 5 March 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)15 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 163. At the close of the prescribed voting period on 5 June 1963 the state of the voting was as follows:

Affirmative votes—twenty-four (24), received in the following order: China, Mayr, Holthuis, Hering, Hemming, Munroe, Lemche, Vokes, Binder, Stoll, Brinck, Obruchev, Key, Alvarado, Uchida, Boschma, do Amaral, Riley, Mertens, Borchsenius, Jaczewski, Tortonese, Bonnet, Kühnelt.

Negative votes—none (0).

On Leave of Absence—two (2): Bradley, Prantl.

Voting Papers not returned—one (1): Evans.

Commissioner Miller returned a late affirmative vote.

Original References

The following are the original references for names placed on the Official Lists by the Ruling given in the present Opinion:

Blastophaga Gravenhorst, 1829, *Beitr. Entom., Schlesische Fauna* **1** : 27
caricae, Cynips, Linnaeus, 1762, *in* Hasselquist, *Reise nach Palästina* : 426
Philotrypesis Förster, 1878, *Ver. naturh. Ver. preus. Rheinl.* **35** : 59–60
psenes, Cynips, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 554

CERTIFICATE

I certify that the votes cast on Voting Paper (63)15 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 694.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
12 *June* 1963

OPINION 695

PNOEPYGA HODGSON, 1844 (AVES): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Microura* Gould, 1837, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Pnoepyga* Hodgson, 1844 (gender : feminine), type-species, by designation by Sharpe, 1881, *Tesia albiventer* Hodgson, 1844, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1580.

(3) The specific name *albiventer* Hodgson, 1837, as published in the binomen *Tesia albiventer* (type-species of *Pnoepyga* Hodgson, 1844) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1961.

(4) The generic name *Microura* Gould, 1837 (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1677.

HISTORY OF THE CASE (Z.N.(S.) 1457)

The present case was submitted to the office of the Commission by Professor Ernst Mayr in April 1960. Professor Mayr's application was sent to the printer on 8 December 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 209–210. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to twelve ornithological serials. The proposals were supported by Miss B. P. Hall, Dr. B. Biswas (*Bull. zool. Nomencl.* **19** : 68) and Dr. C. Vaurie. Objections were received from Dr. S. Dillon Ripley, Dr. Salim Ali (*Bull. zool. Nomencl.* **19** : 2), Dr. K. C. Parkes (*Bull. zool. Nomencl.* **19** : 68) and Dr. A. L. Rand (*Bull. zool. Nomencl.* **19** : 131). Professor Mayr's reply to these objections was circulated to Commissioners with Voting Paper (63)16 and was published in *Bull. zool. Nomencl.* **20** : 16.

DECISION OF THE COMMISSION

On 5 March 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)16 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 210. At the close of the prescribed voting period on 5 June 1963 the state of the voting was as follows:

Affirmative votes—twenty (20), received in the following order: China, Mayr, Hering, Hemming, Vokes, Munroe, Lemche, Binder, Stoll, Obruchev, Key, Alvarado, Brinck, Boschma, do Amaral, Riley, Borchsenius, Tortonese, Bonnet, Kühnelt.

Negative votes—two (2): Holthuis, Mertens.

On Leave of Absence—two (2): Bradley, Prantl.

Voting Papers not returned—two (2): Evans, Jaczewski.

Commissioner Miller returned a late negative vote and Commissioner Uchida abstained from voting. The following comments were made by Commissioners in returning their Voting Papers:

Dr. L. B. Holthuis (11.iii.63): Considering that the name *Microura* (1) was not a nomen oblitum in the sense of the Code (it had been used but not accepted in the fifty years before the publication of the application), (2) is the nomenclaturally correct name for the genus in question, (3) is used in several modern standard works, the use of the plenary powers to suppress it seems to be unjustified in my opinion, the more so as the species of this genus have no importance in applied biology and are practically known only to systematists.

Mr. Francis Hemming (12.iii.63): I find Professor Mayr's rejoinder extremely cogent. The argument in his para. (6) is of particular importance for, as he says, the disregard of it would land us back in the pre-revised Code era of nomenclatural instability.

Original References

The following are the original references for names placed on the Official Lists and Indexes by the Ruling given in the present Opinion:

albiventer, *Tesia*, Hodgson, 1837, *J. asiat. Soc. Bengal* **6** : 102
Microura Gould, 1837, *Icones Avium* (1) : expl. to pl. 5
Pnoepyga Hodgson, 1844, *Zool. Misc.* : 82.

The following is the original reference for the designation of a type-species for a nominal genus concerned in the present Ruling:

For *Pnoepyga* Hodgson, 1844 : Sharpe, 1881, *Cat. Birds Brit. Mus.* **6** : 31

CERTIFICATE

I certify that the votes cast on Voting Paper (63)16 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 695.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
12 *June* 1963

PROPOSED USE OF THE PLENARY POWERS TO GRANT PRECEDENCE TO THE FAMILY-GROUP NAME CUTHONIDAE OVER TERGIPEDIDAE AND TO STABILIZE SOME SPECIFIC NAMES IN THE GENUS KNOWN AS *EUBRANCHUS* FORBES, 1838 (CLASS GASTROPODA). Z.N.(S.) 1044

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

The purpose of the present application is to ask the use of the plenary powers to grant precedence to the family name CUTHONIDAE over its senior synonym TERGIPEDIDAE which is based on an atypical genus. The Commission is also asked to use its plenary powers to suppress several *nomina dubia* in order to stabilize a number of specific names in the genus *Eubranchus*.

2. In 1775, Forskål (*Descr. Anim.* : 99) mentioned a new species of marine slugs, *Limax tergipes*, giving as its habitat " in fundo maris ad fretum Oeresund inter fucos ". The description and the accompanying figure show beyond doubt that among the relatively few species of Aeolids found in the sound (Oeresund) between Denmark and Sweden, only one comes into consideration as the basis for Forskål's species, viz. the one now generally known as *Tergipes despectus* (*Eolidia despecta* Johnston, 1835, *Mag. nat. Hist.* (Lond.) **8 :** 378; erroneously written *Aeolis neglecta* by Lovén, 1846, *Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **1846 :** 7).

3. The generic name *Tergipes* was introduced by Cuvier, 1805 (*Ann. Mus. Hist. nat.*, Paris **6 :** 433) based solely on the description given by Forskål, the type being by monotypy *Limax tergipes* Forskål. However, Sherborn and Neave give Risso (1818, *J. Phys.* **87 :** 372) as the author. Sherborn states further that, according to Herrmannsen the nudibranch described under the name *Tergipes* by Cuvier is not the same as *Tergipes* Risso, and Cuvier's name is held not to have been properly published. Verifying these statements I found that in the first edition of his *Règne Animal* (1817) Cuvier uses the name in the vernacular form—or at least it is not possible to see whether it is more than the vernacular form. But, in 1805, Cuvier states about *Limax tergipes* Forskål " il faudroit un nouvel examen pour assigner la place de ce singulièr et très petite mollusque qui doit probablement faire encore un genre à part, et qu'on pourrait nommer *tergipes* ". Further (: 436) he enumerates the valid genera as follows " Les *doris*, les *tritonies*, les *glaucus*, les *éolides*, les *tergipes*, les *cavolines* " this time using the names in their vernacular forms by adding the article " les ". The latter citation shows that Cuvier regards the " *tergipes* " as a genus, and the lack of the determinate article in the former place shows that he is giving the latin form of the name. As to Risso, he refers his genus to Cuvier, then adding (: 373) two new species. Such action however cannot be taken as constituting a new genus with only the cited species included. Thus, there is no *Tergipes* Risso, 1818, but only *Tergipes* Cuvier, 1805.

4. No doubt, the type-species—by tautonomy—of Cuvier's genus *Tergipes* is *Limax tergipes* Forskål. This specific name has almost never been used since its original publication (with the exception of Thiele, 1931), the name (*Eolidia*)

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despecta Johnston, 1835 being used instead. It is a matter of opinion whether it is better to ask for the use of the plenary powers in order to preserve the specific name *despecta*—disregarding the tautonomy—or to accept the name *Tergipes tergipes* strictly under the Rules. As, however, the species is rather unimportant, and the tautonomy immediately leads any student on the right track, I am of the personal opinion that the change is harmless and the rules should be allowed to govern the case.

5. The genus *Tergipes* Fleming, 1828, is described with only one included species and with a generic diagnosis that does not conform to that of Cuvier's genus, to which no reference is made. Thus, *Tergipes* Fleming is to be taken as a nominal genus with type by monotypy, *Doris maculata* Montagu, 1804. This is the same nominal species as is the type of *Doto* Oken, 1815.[1] *Tergipes* Fleming is therefore invalid both as a junior objective synonym of *Doto* Oken, 1815, and as a junior homonym of *Tergipes* Cuvier, 1805. The name should now be placed on the Official Index.

6. Bergh (in Carus, 1889—*Prodr. Faun. Medit.* **2** : 209) established two subfamilies of aeolids under the names CRATENINAE and TERGIPEDINAE. Thiele (1931—*Handb. Syst. Weichtierk.* **1** : 454), uniting these two family groups, followed the rule of using the oldest generic name as the basis for the family name, thus accepting TERGIPEDIDAE. This action, however, meant that the most aberrant and specialized genus in the whole family was made the type of the group. The viewpoint behind this action has never been accepted by the Commission nor by any Congress. Macnae (1954, *Ann. Natal Mus.* **13** : 3) protested directly against using the family name based on *Tergipes* because this genus " does not, from a taxonomic point of view, occupy a central position in the family ". He refers to Odhner, the leading specialist at present in this group, who has continued consistently to call the family CUTHONIDAE because the genus *Cuthona* Alder and Hancock, 1855 (*Mon. brit. Nud. Moll.* App. : xxii) is a typical and centrally placed form. I am myself of the same opinion and, when the name CRATENIDAE is—as I hope—definitely rejected (see application Z.N.(S.) 1105 (*Bull. zool. Nomencl.* **21** : 50-51)) I am strongly in favour of placing the name CUTHONIDAE Odhner, 1934 (*Brit. Antarct.* (*Terra Nova*) *Exp.*, Nat. Hist. Rept., Zool. **7** : 278) on the Official List with an endorsement that this name is to be given precedence over the family name TERGIPEDIDAE. The family CUTHONIDAE is at present regarded as comprising two subfamilies, the typical CUTHONINAE and the atypical TERGIPEDINAE. Both these names should be allowed to stand. The type-species, by monotypy, of *Cuthona* Alder & Hancock, 1855, is *Eolis nana* Alder & Hancock, 1842 (*Ann. Mag. nat. Hist.* **9** : 36).

7. In 1776, Müller (*Zool. dan. Prodr.* : 229) gave the following diagnosis of his species no. 2279 *Doris lacinulata*, " oblonga alba, lobis dorsi ampullaceis ". Müller's diagnosis may cover either the species now generally called *Tergipes despectus* (Johnston) or the species *Eolis pallida* Alder & Hancock, 1842, now referred to the genus *Eubranchus*. Müller's diagnosis " lobis dorsi ampullaceis " fits with *pallida* better than with *Tergipes despectus*.

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[1] An application to validate the generic name *Doto* Oken, 1815, was approved by the Commission. The decision will be published as Opinion 697.

8. Gmelin (1791, *Syst. Nat.* (ed. 13) **1** : 3105) gives the name (*Doris*) *lacinulata* with the reference " Forsk. Fn.Arab. p. 99 n. 4 Anim. t. 26 f. 4 *Limax tergipes.* Habitat in fundo maris ad fretum Oeresund inter fucos —— " thus repeating the faunistical remarks of Forskål for his *Limax tergipes*. There can be no doubt, therefore, that Gmelin's *lacinulata* is a junior synonym of *tergipes* Forskål, and a junior homonym of *Doris lacinulata* Müller. Again, " *Tergipes lacinulatus* Delle Chiaje " is said by Verany 1854 (*J. Conchyl.* **4** : 385) to be *Doto coronata* Gmelin, 1791, and *Tergipes lacinulatus* Lovén, 1846 (*Öfvers K.svensk. Vetensk.-Akad. Förhandl.* **1846** : 7) is a composite of *Tergipes tergipes* Forskål and one of the brown species of *Eubranchus*, as shown by the drawing published by Odhner (1907 *K.svensk. Vetensk.-Akad. Handl.* **41** (4) : pl. 3, fig. 21).

9. These examples of the confusion attached to the use of the name *lacinulata* in the genera *Tergipes* and *Eubranchus* may suffice to show that it would be most undesirable to revive this name. As, however, it has clear priority over most of the names in common use, it is a potential threat to these and is hereby proposed for suppression under the plenary powers.

10. At the same time, the opportunity should be taken to place on the Official List of Specific Names the oldest names of two of the species to which the name *lacinulata* has been attributed—the small *Eolis exigua* Alder & Hancock, 1848 (*Ann. Mag. nat. Hist.* (2) **1** : 192) and *Eolis pallida* Alder & Hancock, 1842 (*Ann. Mag. nat. Hist.* **9** : 35) which latter name was changed by the same authors to *picta* in 1847 (*Mon. brit. Nud. Moll.* (3), fam. 3, pl. 33) because of its normal colour being brighter reddish than in the specimens used for their first description. The name *picta*, being a junior objective synonym of *pallida* and rejected by most modern authors, should now be placed on the Official Index.

11. *Doris fasciculata* Müller, 1776 (*Zool. dan. Prodr.* : 229) with the diagnosis " oblonga, alba fasciculis marginalibus, fuscis " is a name which must refer to some species of one or other of the genera treated in the present proposals, probably of *Eubranchus*, but which is entirely unrecognizable on the specific level. It appears suitable to suppress this name in order to prevent any confusion arising from the possible application of this name to any of the later described and more well known Aeolidacea from Northern Atlantic seas. The species *fasciculata* Müller is not the same as *Doris fasciculata* Gmelin, 1791 (*Syst. Nat.* (ed. 13) **1** : 3105) which is identical with *Limax marinus* Forskål, 1775 and falls into the synonymy of this older species.

12. *Limax minimus* Forskål, 1775 (*Descr. Anim.* : 100) is a Mediterranean species, the diagnosis and figure of which tell us that its anterior corners of the foot are rounded, the row of the ovate-oblong cerata evenly distributed over the back, with a rather wide open space in the middle of the back, with simple rhinophores, and with well developed anterior tentacles. This description fits in with the genus *Eubranchus*, but the species is unrecognizable, and it seems better to suppress the name in order to avoid the confusion arising if that name should be applied to now one and now another of the well known species of *Eubranchus*.

13. The International Commission on Zoological Nomenclature is therefore asked:

(1) to use its plenary powers:
  (a) to grant precedence to the family name CUTHONIDAE Odhner, 1934 over the family name TERGIPEDIDAE Bergh, in Carus, 1889;
  (b) to suppress the following specific names for the purposes of the Law of Priority but not for those of the Law of Homonymy:
    (i) *lacinulata* Müller, 1776, as published in the binomen *Doris lacinulata;*
    (ii) *fasciculata* Müller, 1776, as published in the binomen *Doris fasciculata;*
    (iii) *minimus* Forskål, 1775, as published in the binomen *Limax minimus;*

(2) to place the following generic names on the Official List of Generic Names in Zoology:
  (a) *Tergipes* Cuvier, 1805 (gender: masculine), type-species, by monotypy, *Limax tergipes* Forskål, 1775;
  (b) *Cuthona* Alder & Hancock, 1855 (gender: feminine), type-species, by monotypy, *Eolis nana* Alder & Hancock, 1842;

(3) to place the following specific names on the Official List of Specific Names in Zoology:
  (a) *tergipes* Forskål, 1775, as published in the binomen *Limax tergipes* (type-species of *Tergipes* Cuvier, 1805);
  (b) *nana* Alder & Hancock, 1842, as published in the binomen *Eolis nana* (type-species of *Cuthona* Alder & Hancock, 1855);
  (c) *pallida* Alder & Hancock, 1842, as published in the binomen *Eolis pallida;*
  (d) *exigua* Alder & Hancock, 1848, as published in the binomen *Eolis exigua;*

(4) to place the generic name *Tergipes* Fleming, 1828, a junior homonym of *Tergipes* Cuvier, 1805, on the Official Index of Rejected and Invalid Generic Names in Zoology;

(5) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology:
  (a) the following names suppressed under the plenary powers in (1) (b) above:
    (i) *lacinulata* Müller, 1776, as published in the binomen *Doris lacinulata*;
    (ii) *fasciculata* Müller, 1776, as published in the binomen *Doris fasciculata*;
    (iii) *minimus* Forskål, 1775, as published in the binomen *Limax minimus*;
  (b) *neglecta* Lovén, 1846, as published in the binomen *Aeolis neglecta* (an error for *Eolidia despecta* Johnston, 1835);
  (c) *lacinulata* Gmelin, 1791, as published in the binomen *Doris lacinulata* (a junior homonym of *Doris lacinulata* Müller, 1776);
  (d) *picta* Alder & Hancock, 1847, as published in the binomen *Eolis picta* (a junior objective synonym of *Eolis pallida* Alder & Hancock 1842);

(e) *fasciculata* Gmelin, 1791, as published in the binomen *Doris fasciculata* (a junior homonym of *Doris fasciculata* Müller, 1776);

(6) to place the following family-group names on the Official List of Family-Group Names in Zoology:

(a) CUTHONIDAE Odhner, 1934 (type-genus *Cuthona* Alder & Hancock, 1855) (by direction under the plenary powers in (1) (a) above to be given precedence over the name TERGIPEDIDAE Bergh, in Carus, 1889, by any zoologist who considers *Cuthona* and *Tergipes* to belong to the same family-group taxon);

(b) TERGIPEDINAE Bergh, in Carus, 1889 (type-genus *Tergipes* Cuvier, 1805).

EUBRANCHUS FORBES, 1838 (GASTROPODA): PROPOSED DESIGNATION UNDER THE PLENARY POWERS OF A TYPE-SPECIES, WITH SUPPRESSION OF SEVERAL NOMINA DUBIA. Z.N.(S.) 1102

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

The purpose of the present application is to secure the continuation of the currently stable use of the generic name *Eubranchus* Forbes, 1838, by the suppression under the plenary powers of several nomina dubia and the designation of a new type-species for the genus.

2. In 1838 Forbes (*Malac. Mon.*: 5) introduced the new generic name *Eubranchus* for the new species *Eubranchus tricolor* Forbes, 1838, which is therefore the type-species by monotypy.

3. In 1855 Alder & Hancock (*Mon. Brit. Nud. Moll.* (7) app.: XXII) in revising their classification of the nudibranchs, proposed the generic name *Galvina* for a genus including two groups of species. One group had the type indicated as *tricolor* Forbes, 1838, and the other as *Eolis cingulata* Alder & Hancock, 1847 (*Mon. Brit. Nud. Moll.*: fam. 3, pl. 28). The authors, however, gave no indication of whether they considered one or other of these species as the type of *Galvina*. The first designation of a type-species for *Galvina* was by Iredale & O'Donoghue (1923, *Proc. malac. Soc. Lond.* **15** : 208) who chose *Eubranchus tricolor* Forbes, thus making *Galvina* a junior objective synonym of *Eubranchus*. Three years later (*Proc. malac. Soc. Lond.* **17** : 127) O'Donoghue tried to establish *Eolis farrani* Alder & Hancock, 1844 (*Ann. Mag. nat. Hist.* **13** : 164) as the type of *Galvina*, erroneously citing *farrani* instead of *cingulata* as the other species originally included by Alder & Hancock in their genus *Galvina*.

4. Bergh in 1874 (*Verh. zool. -bot. Ges. Wien* **1873** : 26) described a new species which he named *Galvina viridula*. Odhner (1929, *Tromsö Museums Årshefter* **50** (1927) nr. 1 : 11) made this species the type of a separate genus *Egalvina*. *Egalvina*, which is still a monotypic genus, is easily recognised by its densely placed, outwards branching rows of cerata, and by the very strange shape of the anterior corners of the foot. Recent field investigations have given me the opportunity to see this species alive near Bergen in Norway, at the Gullmarfiord in Western Sweden, and at Elsinore in Denmark. Each time my first idea was that I had met *Eubranchus tricolor* Forbes, and each time the specimens were afterwards found to correspond in all details to the description of *Egalvina viridula*. As the latter has never been recorded from Great Britain, and the true *Eubranchus tricolor* never from Scandinavian waters, the suspicion arose that the two species were identical. The type of *Eubranchus tricolor* being lost, there was no other possibility of checking the question than by borrowing some authentic material from the British Museum (Natural History) in order to see whether British scientists used the name in the manner supposed. Thanks to the courtesy of the staff of the British Museum, I have now been able to obtain on loan the only two specimens safely identified as *Eubranchus tricolor*

from Britain in their collections. The specimens immediately proved to be the same species as *Egalvina viridula*.

5. The effect on the nomenclature of the genera involved is disastrous. Up to 1923, the name *Galvina* had come into general use for a genus containing quite a number of species, but a change was made through the publication by Iredale & O'Donoghue (1923) of a List of British Nudibranchiate Mollusca (*vide* para. 2 above), and since then the name *Eubranchus* has been universally accepted instead, *Galvina* having been made a junior objective synonym of that name. If we now permit *Eubranchus* to be transferred to the genus now known as *Egalvina*, the name *Galvina* will become similarly transferred, and we will have a large genus left without a name, and another smaller genus with three names, of which the generally used one is a junior synonym of each of the other names. This confusion must be avoided.

6. On the specific level, the name *tricolor* Forbes has been attached to a species which has always stood as one of the best defined within the genus, and for many years it has covered the type. When now the species *tricolor* has to be removed from its old generic concept, a retention of the name, although perfectly correct under the rules, will unavoidably cause much trouble. In the eyes of the experienced specialists, the name will replace *Egalvina viridula* (correctly but most inconveniently), but to all those relying for information on older literature it will for a long time remain as standing for the type-species of *Eubranchus*. In my opinion we must suppress that name as being compromised when making the adjustment now proposed. Even when *tricolor* is suppressed, it is not quite certain that *viridula* Bergh will stand as the oldest name available. In 1847, Alder & Hancock (*Mon. Brit. Nud. Moll.* (3) fam. 3, pl. 31) described a species *Eolis arenicola* which has never been found again, the single type specimen is lost, and the species thus remains dubious. It may or may not cover the species *Egalvina viridula*, and the name *arenicola* has priority. Therefore, as a potential threat to stability it should be suppressed under the plenary powers.

7. Looking around to find a suitable species on which to fix the name *Eubranchus* under the plenary powers so that it can continue to cover the taxon with which it is generally associated, I find that (a) the name *cingulata* Alder & Hancock was published in 1847 as a nomen nov. pro *Eolis hystrix* Alder & Hancock, 1842 non Otto (1821, *Consp. Anim. quor. marit. non edit.* **1** : 8). At present this species is not too well-known, and its possible identity with the older species *Eolis vittatus* Alder & Hancock, 1842 (*Ann. Mag. nat. Hist.* **9** : 35) is still debatable. It would be dangerous, therefore, to base the future position of the genus hitherto known as *Eubranchus* on such an uncertain type-species. (b) There are quite a number of species referred to the genus, but their number and their differences, as well as even their names are not sufficiently well investigated with one exception. (c) *Eolis farrani* Alder & Hancock, 1844, is the only species which is not involved in this trouble. Although it has hitherto, on quite insufficient reasons, been regarded as a colour variety of *Eubranchus tricolor*, it is definitely a true *Eubranchus* with its rounded anterior foot corners and its simple transverse rows of cerata etc. It is easily recognizable from any of the other species included in the genus and thus for all purposes a very suitable choice as a type for the genus.

8. Two possible solutions, therefore, seem to be open, both based on the proposal of using *farrani* Alder & Hancock as the type of the genus: (a) to vary the type of *Eubranchus*, disregarding the fact that the genus was monotypic when established; (b) to suppress *Eubranchus*, and also the type selection by Iredale and O'Donoghue (1923) of *tricolor* as the type of *Galvina*, and to accept the latter name as the valid one for the genus, with the 1926 selection by O'Donoghue of *farrani* as type to stand. The general use of the name *Eubranchus* favours the first solution, and I propose that solution as being the one leading to least complication.

9. There are, however, two older names which may possibly be attributed to the genus now known as *Eubranchus*. In the case of one of these the definition is too bad to be of any use and the type specimen is lost. The nomen dubium is *Ethalion* Risso, 1826 (*Hist. nat. Europe* **4** : 36), the type-species of which is, by monotypy, the species *Eolidia histrix* Otto, 1821, redescribed by the same author as *Eolidia hystrix*, 1823 (*Nov. Act. Leop.* **11** : 277). The identity of this species is uncertain, but many authors have been inclined to identify it with *Spurilla neapolitana* (Chiaje, 1844). Pruvot-Fol (1954, *Faune Fr.* 58 : 442) cannot accept this view but places the species amongst the " incertae sedis." The generic name *Ethalion* Risso was invalidly emended to *Aethalion* by Herrmannsen, 1846 (*Indicis Gen. Malacoz. Primordia* **1** : 22) (non *Aethalion* Lepeletier & Serville, 1828, emend. pro *Aetalion* Latreille, 1809).

10. Alder & Hancock, 1842 (*Ann. Mag. nat. Hist.* **9** : 35) gave the name *Eolis hystrix* to a new species but, in 1847 changed the name to *cingulata*. The pictures given by Otto and by Alder & Hancock, however, correspond in so many details that it would not be impossible to imagine them to cover one and the same species, but the identity of *hystrix* Otto will always remain doubtful. It appears therefore that the old name *hystrix* of Otto, and the generic name *Ethalion* based thereon, will remain a potential threat to stability in the names of the genus and some of the species here treated. To avoid this danger, it seems wise to ask for suppression under the plenary powers of these old and doubtful names.

11. When such action is taken it will be well to add the name of still another species, *Eolidia ceratentoma* Otto, 1821 (*ibid.* **1** : 9) and a misspelling of that name, *Eolidia cerentatoma* Pruvot-Fol, 1954 (*ibid.* **58** : 442) to the Official Index. This species is as indeterminable as the former one and as the name is older than those of most nudibranchs, it constitutes another potential threat to stability.

12. In 1844, Quatrefages (*Ann. Sci. Nat. Paris* (3) **1** : 145) established the genus *Amphorina*, type-species by monotypy, *Amphorina alberti* Quatrefages, 1844. The figure given by that author definitely shows his species to be the same as that named *Eolis farrani* by Alder & Hancock in that very same month (March, 1844). The name *farrani* has never been misinterpreted, whereas the name given by Quatrefages has been involved in some of the worst confusions that have ever appeared in the names of nudibranchs. The confusion was initiated by Trinchese who referred some specimens belonging to species of *Trinchesia* to the genus *Amphorina* (see Z.N.(S.) 1106 *Bull. zool. Nomencl.* **21** : 52-55). One of these species is a close relative of *Trinchesia foliata* (Forbes & Goodsir) but was identified with *Amphorina alberti* Quatrefages. I therefore

propose that the International Commission suppress the generic name *Amphorina* and the specific name *alberti.*

13. The International Commission is therefore asked:

(1) to use its plenary powers:
  (a) to set aside all designations of type-species for the nominal genus *Eubranchus* Forbes, 1838, made prior to the Ruling now requested and, having done so, to designate *Eolis farrani* Alder & Hancock, 1844, to be the type-species of that genus;
  (b) to suppress the following generic names for the purposes of the Law of Priority but not for those of the Law of Homonymy:
    (i) *Ethalion* Risso, 1826;
    (ii) *Amphorina* Quatrefages, 1844;
    (iii) *Galvina* Alder & Hancock, 1855;
  (c) to suppress the following specific names for the purposes of the Law of Priority but not for those of the Law of Homonymy:
    (i) *histrix* Otto, 1821, as published in the binomen *Eolidia histrix*;
    (ii) *hystrix* Otto, 1823, as published in the binomen *Eolidia hystrix*;
    (iii) *ceratentoma* Otto, 1821, as published in the binomen *Eolidia ceratentoma;*
    (iv) *alberti* Quatrefages, 1844, as published in the binomen *Amphorina alberti*;
    (v) *tricolor* Forbes, 1838, as published in the binomen *Eubranchus tricolor*;
    (vi) *arenicola* Alder & Hancock, 1847, as published in the binomen *Eolis arenicola*;

(2) to place the following generic names on the Official List of Generic Names in Zoology:
  (a) *Eubranchus* Forbes, 1838, (gender: masculine), type-species, by designation under the plenary powers in (1) (a) above, *Eolis farrani* Alder & Hancock, 1844;
  (b) *Egalvina* Odhner, 1929 (gender: feminine), type-species, by monotypy, *Galvina viridula* Bergh, 1874;

(3) to place the following specific names on the Official List of Specific Names in Zoology:
  (a) *farrani* Alder & Hancock, 1844, as published in the binomen *Eolis farrani* (type-species of *Eubranchus* Forbes, 1838);
  (b) *viridula* Bergh, 1874, as published in the binomen *Galvina viridula* (type-species of *Egalvina* Odhner, 1929);

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:
  (a) *Ethalion* Risso, 1826; (b) *Amphorina* Quatrefages, 1844; (c) *Galvina* Alder & Hancock, 1855 (all suppressed under the plenary powers in (1) (b) above);
  (d) *Aethalion* Herrmannsen, 1846 (an invalid emendation of *Ethalion* Risso);

(5) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology:
   (a) the six specific names suppressed under the plenary powers in (1) (c) above;
   (b) *hystrix* Alder & Hancock, as published in the binomen *Eolis* (*sic*) *hystrix* (a junior primary homonym of *Eolidia hystrix* Otto, 1823);
   (c) *cerentatoma* Pruvot-Fol, 1954, as published in the binomen *Eolidia cerentatoma* (an erroneous subsequent spelling of *Eolidia ceratentoma* Otto, 1821);

(6) to place the family-group name EUBRANCHIDAE Odhner, 1934 (*Brit. Antarct.* (*Terra Nova*) *Exp. Nat. Hist. Rept., Zool.* **7** : 278) (type-genus *Eubranchus* Forbes, 1838) on the Official List of Family-Group Names in Zoology.

CAVOLINA ABILDGAARD, 1791 (GASTROPODA): PROPOSED EMENDATION UNDER THE PLENARY POWERS TO *CAVOLINIA*. Z.N.(S.) 1103

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

In 1791 Abildgaard (*Skr. nat. Selsk.* **1** (2) : 175) described and figured a species of pteropod under the name *Cavolina natans* n.g., n.sp. He compared this species to *Anomia tridentata* Forskål, 1775 (*Descr. Anim.*: 124) and considered that " the close resemblance between the figures and description of Forskål and the shell as above described would leave no doubt that it is the same thing, if Forskål had not described his shell as being a bivalve . . . " (translation from Danish by the present author). Later authors have never been in doubt that *tridentata* Forskål is the valid older name for *Cavolina natans* Abildgaard.

2. In the same year, 1791, Bruguière introduced the name *Cavolina* for a genus of nudibranchs. Winckworth (1941, *Proc. malac. Soc. Lond.* **24** : 146) makes the following comment thereon: " *Cavolina* Bruguière, 1791 is a heading on plate 85 of the Tableau Encyclopédique et Methodique to two unnamed figures which represent *Doris peregrina* Gmelin and *Doris affinis* Gmelin . . . As the name *Cavolina* is without description, reference, or named species, it has no standing (Intern. rules zool. nomencl. art. 25, opinion 1).

" *Cavolina* Cuvier (1817) is adopted from Bruguière.

" *Cavolina* Alder & Hancock (1855) has two sections, of which the types are *C. aurantiaca* (Adler & Hancock) and *C. viridis* (Forbes) ".

3. The information given by Winckworth, however, needs some correction. It was decided at the XIIIth International Congress of Zoology (Paris, 1948) that the publication of a generic name on the legend to an illustration, even without mention of species, constituted an indication (*Bull. zool. Nomencl.* 4 : 255, para. 19—see 1961 Code, Art. 16a (vii)). This decision makes *Cavolina* Brugière an available name. Cuvier, 1817 (*Règne Anim.* **2** : 393) cited *Cavolina* as from Bruguière and included both of the originally figured species, *Doris peregrina* and *Doris affinis*. The first designation of a type-species for the genus was by Gray, 1847 (*Proc. zool. Soc. Lond.:* 166) who so designated *Doris peregrina*. *Cavolina* Bruguière, however, has never been in general use, since most authors considered it unavailable. It is moreover a senior objective synonym of *Rizzolia* Trinchese, 1877, (see application Z.N.(S.) 1105, *Bull. zool. Nomencl.* **21** : 50-51) and the Commission is therefore asked to suppress it under the plenary powers.

4. The " *Cavolina* Alder & Hancock " mentioned by Winckworth should read Forbes & Hanley, 1851 (*Hist. Brit. Moll.* **3** : 597) from whom the former authors took over the name. Forbes & Hanley used it for quite a number of Aeolid nudibranchs, of which Alder & Hancock selected two as types for their two sections of that genus. Thus it seems reasonable to treat the name *Cavolina* Forbes & Hanley as a separate name, being a junior homonym of *Cavolina* Bruguière, 1791, and of *Cavolina* Abildgaard, 1791.

Bull. zool. Nomencl., Vol. 21, Part 1. March 1964.

5. Abildgaard's name *Cavolina* was clearly given in honour of a Dr. Cavolini in Naples from whom he had received the information and the drawings of that animal. The name was consistently spelled as *Cavolina*, which is thus an incorrect though valid spelling. Most authors after 1850 have used the spelling *Cavolinia*, first published by Gray (1840, *Syn. Cont. Brit. Mus.* (ed. 42): 148). The Commission is asked therefore to validate this currently used spelling of the name and to place it on the Official List.

6. Menke, 1845 (*Z. f. Malakzool.* **1844** : 73) emended Bruguière's name *Cavolina* to *Cavolinia.* Neave's Nomenclator indicates that there are several other generic names of this spelling. *Cavolinia* Schweigger, 1819 (*Beob. naturh. Reisen*: 99) was proposed for a coelenterate and, it seems, has never come into use. I have made a search through several handbooks etc. on Coelenterates, but without finding this name. *Cavolinia* Nardo, 1833 (*Isis* (Oken) **1833** : 523) was given to a sponge which has never been identified. In Delage & Herouard (1899, *Traité de Zoologie* II, **1** : 201) this name is placed in the list of " Spongiaires incertains ", the description of which does not allow their proper identification. All these names should be placed on the Official Index if the proposed emendation of *Cavolina* Abildgaard is accepted.

7. There are family names based on both genera called *Cavolina.* The CAVOLINIDAE of d'Orbigny, 1842 (*Paléont. franc.*, Terr. crét. **2** : 21) is based on the nudibranch genus of Bruguière, whereas the CAVOLINIDAE of Gray, 1850 (*Catal. Moll. Coll. B.M.* (2), Pteropoda: 3, 4) is based on the pteropod genus. The latter name should now be placed on the Official List in the corrected form CAVOLINIIDAE (emend. by Locard, 1886, *Cat. Gén. Moll. viv. France*: 21), whereas the former should go on the Official Index.

8. The International Commission is therefore asked:

(1) to use its plenary powers:
   (a) to validate the emendation to *Cavolinia* of the generic name *Cavolina* Abildgaard, 1791;
   (b) to suppress the generic name *Cavolina* Bruguière, 1791, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Cavolinia* (emend. of *Cavolina*) Abildgaard, 1791 (gender: feminine) type-species, by monotypy, *Cavolina natans* Abildgaard, 1791, on the Official List of Generic Names in Zoology;

(3) to place the specific name *tridentata* Forskål, 1775, as published in the binomen *Anomia tridentata*, on the Official List of Specific Names in Zoology;

(4) to place the name CAVOLINIIDAE Gray, 1850 (correction of CAVOLINIDAE) (type-genus *Cavolinia* (emend. of *Cavolina*) Abildgaard, 1791) on the Official List of Family-Group Names in Zoology;

(5) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:
   (a) *Cavolina* Bruguière, 1791 (suppressed under the plenary powers in (1) (b) above);
   (b) *Cavolina* Forbes & Hanley, 1851 (a junior homonym of *Cavolina* Bruguière, 1791);

(c) *Cavolina* Abildgaard, 1791 (Ruled under the plenary powers in (1) (a) above to be an incorrect original spelling for *Cavolinia*);

(d) *Cavolinia* Schweigger, 1819 (a junior homonym of *Cavolinia* Abildgaard, 1791);

(e) *Cavolinia* Nardo, 1833 (a junior homonym of *Cavolinia* Abildgaard, 1791);

(f) *Cavolinia* Menke, 1845 (a junior homonym of *Cavolinia* Abildgaard, 1791);

(6) to place the name CAVOLINIDAE d'Orbigny, 1842 (type-genus *Cavolina* Bruguière, 1791, suppressed under the plenary powers in (1) (b) above) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

FACELINA ALDER & HANCOCK, 1855 (GASTROPODA): PROPOSED ADDITION TO THE OFFICIAL LIST. Z.N.(S.) 1104

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

The generic name *Montagua* was introduced for a genus of nudibranchs by Fleming (1822, *Encycl. Brit.* (Suppl. ed. 4–6) **5** : 575, (May) and *Phil. Zool.* **2** : 470 (June)) without regard to the earlier name *Montagua* Leach, 1814 (*Edinb. Encycl.* (Brewster) **7** : 436) for a Crustacean. Fleming included two species in his genus—*Doris longicornis* Montagu, 1808 (*Trans. Linn. Soc. Lond.* **9** : 107, pl. 7, fig. 1), which he designated as the type-species in June 1822, and *Doris caerulea* Montagu, 1804 (*Trans. linn. Soc. Lond.* **7** : 78, pl. 7, fig. 4, 5). Gray, 1847 (*Proc. zool. Soc. Lond.* **15** : 166) selected *Doris caerulea* as type, apparently ignoring Fleming's designation, and thereby involving the name *Montagua* Fleming in the problems dealt with in *Bull. zool. Nomencl.* **21** : 50-51 Z.N.(S.) 1105.

2. It seems that the name *Montagua* Leach, 1814, has never been accepted in the Crustacean Anomura in the sense intended by that author, probably because it is an objective synonym of *Callianassa* Leach, published in the same work, on the same day. The name *Montagua* Spence Bate, 1856 (*Rep. Brit. Ass. Adv. Sci.* **25** (1855) : 57) for a genus of Amphipods has been used to some extent but was changed to *Montaguana* by Chilton, 1883 (*Trans. N.Z. Inst.* **15** : 78). The type of *Montagua* Spence Bate, and therefore of *Montaguana* Chilton, is *Cancer* (*Gammarus*) *monoculoides* Montagu, 1813 (*Trans. Linn. Soc. Lond.* **11** : 5), by monotypy. It seems that whatever the position of *Montagua* in the Crustacea, the name cannot be made valid for any molluscan genus without action under the plenary powers.

3. The species *Doris longicornis* Montagu, which is the valid type-species of *Montagua* Fleming (non Leach), is generally identified as being the same as *Eolida coronata* Forbes & Goodsir, 1839 (*Athenaeum* (618) : 647) which was made the type by original designation of the genus *Facelina* Alder & Hancock, 1855 (*Mon. Brit. Nud. Moll.* (7) : app. xxii), and both of these specific names are now considered to be junior synonyms of *Doris auriculata* Müller, 1776 (*Zool. dan. Prodr.* : 229). Müller's name was forgotten for a long time but was reintroduced by Odhner, 1939, and has since been adopted. Swennen (1961, *Netherl. J. Sea Res.* 1 : 222) maintains that Müller's species is indeterminable, but his figure as given by Abildgaard, 1807 (*Zool. dan.* 4 : tab. 38, fig. 1) distinctly shows the gills placed in clusters, and lamellate rhinophores, which definitely prove the animal to have been a *Facelina*, a genus of which only one species is known from Scandinavia. The generic name *Facelina* has come into universal use and should now be placed on the Official List.

4. The subfamily name FACELININAE, also in general use, was first published by Bergh, in Carus, 1889 (*Prodr. Faun. Med.* **2** : 213) and should be added to the Official List.

5. The International Commission is therefore asked:

(1) to place the generic name *Facelina* Alder & Hancock, 1855 (gender : feminine), type-species, by original designation, *Eolidia coronata* Forbes & Goodsir, 1839, on the Official List of Generic Names in Zoology;

(2) to place the specific name *auriculata* Müller, 1776, as published in the binomen *Doris auriculata*, on the Official List of Specific Names in Zoology;

(3) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:

  (a) *Montagua* Spence Bate, 1856 (a junior homonym of *Montagua* Leach, 1814);

  (b) *Montagua* Fleming, 1822 (a junior homonym of *Montagua* Leach, 1814);

(4) to place the family-group name FACELININAE Bergh, in Carus, 1889 (type-genus *Facelina* Alder & Hancock, 1855) on the Official List of Family-Group Names in Zoology.

PROPOSED SUPPRESSION UNDER THE PLENARY POWERS OF THE GENERIC NAME *CRATENA* BERGH, 1864, IN ORDER TO VALIDATE THE GENERIC NAME *RIZZOLIA* TRINCHESE, 1877 (CLASS GASTROPODA). Z.N.(S.) 1105

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

Bergh, 1864 (*K. Danske Vid. Selsk. Skr. Math.-nat. Afd.* (5) **7** : 213) described a new genus *Cratena.* In a rather lengthy discussion in Danish, he pointed out the confusion already existing in the use of the name *Montagua.* To clarify some of the problems involved he introduced *Cratena*, giving as the type-species " *Ae. peregrina* " which is *Doris peregrina* Gmelin, 1791 (*Syst. Nat.* (ed. 13) **1** : 3105).

2. Later authors, amongst them Iredale and O'Donoghue (1923, *Proc. Malac. Soc. Lond.* **15** : 104) interpreted Bergh's explanations to mean that the name *Cratena* was to be regarded as a substitute name for *Montagua* Fleming, 1822[1], with the result that they regarded *Doris caerulea* Montagu, 1804 as the type. Winckworth (1941, *Proc. Malac. Soc. Lond.* **24** : 146) gave a translation into English of the main parts of Bergh's discussion and concluded correctly that the type-species of *Cratena* is *Doris peregrina* Gmelin.

3. In 1877, Trinchese (*Rend. Acc. Sci. Inst. Bologna*, **1876–77** : 147) published the name *Rizzolia*, the type-species of which, by monotypy, is also *Doris peregrina* Gmelin, 1791. Thus *Cratena* and *Rizzolia* are objective synonyms[2]. The misunderstandings as to the real nature of the genus *Cratena*, however, were furthered by Bergh himself, who in his later papers had entirely forgotten what was his original intention in erecting the genus. Thus in Malac. Unters. **3** *in* Semper, *Reisen Arch. Philip.* **3** (18) : 1031, he placed the species *Rizzolia peregrina* under the " subfamily V, Favorinidae " far distant from his " subfamily II, Cratenidae " (: 1021).

4. There has never been any confusion between the genera *Rizzolia* Trinchese, and *Cratena* Auctt. non Bergh, so that the enormous confusion in which this latter name has been involved did not spread to *Rizzolia*—until, in 1954, Macnae (*Ann. Natal Mus.* **13** : 28) accepted the name *Cratena* in its original sense, placing *Rizzolia* as a synonym. However correct this procedure may be, it is certain to cause even more confusion than ever. More than half of the large group Aeolidacea has become involved in such entangled nomenclatorial problems and changes that a break-down of the whole taxonomy is threatened. It is of the utmost importance that this confusion be stopped as soon as ever possible. Therefore, as regards the name *Cratena*, one of the centres of this confusion, there is no other possibility than to have it suppressed altogether.

5. At the same time the family-group name CRATENINAE Bergh, in Carus, 1889 (*Prodr. Fauna Med.* **2** : 209) should be placed on the Official Index. This name is based upon a misidentified type-genus and was used in the same sense

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[1] See application Z.N.(S.) 1104, *Bull. zool. Nomencl.* 21: 48-49
[2] See application Z.N.(S.) 1103, *Bull. zool. Nomencl.* 21: 45-47

by Bergh, 1892 (see para. 3 above). The family name CRATENIDAE is a senior synonym of TERGIPEDIDAE and of CUTHONIDAE—names which have been dealt with in another application (see application Z.N.(S.) 1044, *Bull. Zool. Nomencl.* **21** : 35-39). Odhner, 1939 (*K. Nor. Vid. Selsk. Skr.*, 1939, **1** : 77) set up the subfamily RIZZOLIINAE with type-genus *Rizzolia* Trinchese. This name, however, is not in common use as it is not considered to be systematically distinct from FAVORININAE Bergh, in Carus, 1889.

6. The International Commission on Zoological Nomenclature is therefore asked:

(1) to use its plenary powers to suppress the generic name *Cratena* Bergh, 1864, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Rizzolia* Trinchese, 1877 (gender: feminine) type-species, by monotypy, *Doris peregrina* Gmelin, 1791, on the Official List of Generic Names in Zoology;

(3) to place the specific name *peregrina* Gmelin, 1791, as published in the binomen *Doris peregrina* (type-species of *Rizzolia* Trinchese, 1877) on the Official List of Specific Names in Zoology;

(4) to place the generic name *Cratena* Bergh, 1864, suppressed under the Plenary Powers in (1) above, on the Official Index of Rejected and Invalid Generic Names in Zoology;

(5) to place the subfamily name CRATENINAE Bergh, in Carus, 1889 (type-genus *Cratena* Bergh, 1864) invalid because the name of the type-genus has been suppressed under the plenary powers) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

PROPOSED STABILISATION OF THE GENERIC NAME *TRINCHESIA* IHERING, 1879, AND SUPPRESSION UNDER THE PLENARY POWERS OF *DIAPHOREOLIS* IREDALE & O'DONOGHUE, 1923 (CLASS GASTROPODA). Z.N.(S.) 1106

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

In 1844 (*Ann. Sci. nat. Paris* (3) **1** : 145) Quatrefages established a new genus *Amphorina* with the new species *Amphorina alberti*, clearly based on the same species which was described by Alder & Hancock, 1844 (*Ann. Mag. nat. Hist.* **13** : 164) as *Eolis farrani* (see also application Z.N.(S.) 1102, *Bull. zool. Nomencl.* **21** : 40-44).

2. Trinchese (1879, *Aeolid. fam. aff. Porto Genova*: 83, 87) figured two nudibranchs (tab. 30) the first of which he identified with " *Amphorina alberti* " of Quatrefages and the second, correctly, with " *Amphorina* " *caerulea* Montagu. This identification of *Amphorina alberti* as being a species with an uniseriate radula, links the concept of the genus *Amphorina* with the problems here discussed. O'Donoghue (1926, *Proc. malac. Soc. Lond.* **17** : 128) has clearly demonstrated that the species thus mentioned by Trinchese cannot even be congeneric with the true *Amphorina alberti* Quatrefages. I have myself studied the drawing given and am of the opinion that it represents a species closely related to, if not the same as, *Eolida foliata* Forbes & Goodsir, 1839.

3. Bergh, 1882 (*Verh. zool.- bot. Ges. Wien*: 39) accepted Trinchese's view and thus helped in introducing the name *Amphorina* into the literature on nudibranchs in an erroneous sense, covering the same group of species with uniseriate radula as those often erroneously referred to the genera *Cratena* Bergh, 1864, *Montagua* Fleming, 1822, and *Cavolina* Bruguière, 1791 (see application Z.N.(S.) 1103, 1104, 1105, *Bull. zool. Nomencl.* **21** : 45-51).

4. Ihering (1879, *Zool. Anz.* **2** : 137) when discussing a number of anatomical details added a footnote explaining that, at Naples, he had found a group of Aeolid species which " abgesehen von der Penisbewaffnung, nur daduch von den Galvinen sich unterscheiden dass ihre Radula einreihig ist ". No doubt this description covers species belonging to the Cuthonidae, but no species were mentioned although Ihering gave the generic name *Trinchesia* to the group. This generic name thus having been published without included nominal species, the first subsequent author to use the generic name has the right to define the genus by placing one or more species in it. This action was performed by Carus (1889, *Prodr. Fauna Medit.* **2** : 210) who cited *Trinchesia* as a synonym under *Amphorina*, in which genus he included the two species *A alberti* and *A. caerulea*. As explained above, these are exactly the species which Trinchese had figured in 1879 and misidentified as belonging to the genus *Amphorina*, in spite of their uniseriate radula.

5. Macnae (1954, *Proc. malac. Soc. Lond.* **31** : 53) argued that the genus *Trinchesia* as intended by Ihering cannot include those species which have a central radular cusp less prominent than the lateral denticles. The radula of the two species included by Carus is, however, of this type. Ihering expressly

stated that the radula is similar to that in the genus *Galvina* except that it is uniseriate, but the central cusps in *Galvina* are always prominent. Such species are now commonly referred to the genus *Cuthona* Alder & Hancock, 1855. Thus, Macnae rejects the definition of the genus as established by Carus. However sound the reasoning as to the intentions of Ihering may be, it cannot be conclusive, because Carus did not act in conformity with that view.

6. The two species mentioned by Carus were, however, not taken directly from their original authors but from Trinchese who as explained above, misidentified one of them as being the *Amphorina alberti* of Quatrefages, 1844. The danger that still more confusion would arise through any type selection of the misidentified species was met with when Pruvot-Fol, 1954 (*Faune France* **58** : 380) selected "*Amphorina caerulea*" of Trinchese to be the type. This is certainly the same species as the true *Doris coerulea* Montagu, 1804. Recent, still unpublished, studies of mine, have convinced me that *Doris caerulea* Montagu, 1804 (*Trans. Linn. Soc. London* **7** : 78) is not only a perfectly good and valid species, but that it is even identical with the later described species *Montagua viridis* Forbes, 1840, one of the best known species of the group of Cuthonidae for which the present proposals are intended to fix a name.

7. The name *Trinchesia* Ihering was totally forgotten until Pruvot-Fol, 1948 (*Bull. Mus. Hist. nat. Paris* (2) **20** : 277) drew attention to it. Winckworth (1951, *J. Conch.* **23** : 133) accepted this solution of the problem of finding a good name for this genus, preferring the name *Trinchesia* to his own name *Catriona* established for the same group of species (but with another type-species) a few years earlier.

8. The name *Cratena* Bergh, 1864, was originally intended for a genus with the type-species *Doris peregrina* Gmelin but has since been used almost exclusively for the group of Cuthonidae here discussed. There might have been a possibility that this relatively general usage could be established under the plenary powers, but this solution has now been prevented by the action of Macnae (1954, *Ann. Natal Mus.* **13** : 28) who as the first modern author transferred the name back to its original genus, generally known as *Rizzolia*. The confusion arising if *Cratena* should now be retained in any sense whatsoever, would be too great to be tolerated.

9. The present state is as follows. Macnae (1954, *Ann. Natal Mus.* **13** : 3) and after him Baba (1955, *Opisth. Sagami Bay Suppl.*: 56) accept *Catriona*. Pruvot-Fol (1951, *Arch. Zool. Expér. Gén.* **88** : 64, and *Faune France* **58** : 380) prefers the name *Trinchesia* and was followed therein by Winckworth (1951, *J. Conch.* **23** : 133) who abandoned the use of his own name *Catriona*. As to myself, I favour the use of *Trinchesia*, regarding it as proved that the valid type of this genus is *Doris caerulea* Montagu. As the type of *Catriona* Winckworth, 1941 (*Proc. malac. Soc. Lond*, **24** : 148), by original designation, is *Eolis aurantia* Alder & Hancock, 1842 (*Ann. Mag. nat. Hist.* **9** : 34), emended to *aurantiaca* by Alder & Hancock themselves (1851, *Mon. Brit. Nud. Moll.*, fam. 3, pl. 27), there is still the possibility that *Catriona* could be used for a genus with this type-species independently of *Trinchesia*.

10. The name *Diaphoreolis* was introduced by Iredale & O'Donoghue, 1923 (*Proc. malac. Soc. Lond.* **15** : 202) with the sole included species *Eolis northum-*

brica Alder & Hancock, 1844 (*Ann. Mag. nat. Hist.* **13** : 165). This species is based solely on two specimens found by the said authors and several good drawings in colour have been published by them (1855, *Mon. Brit. Nud. Moll.*, fam. 3, pl. 31, figs. 2–3) and by Eliot (1910, *Mon. Brit. Nud. Moll. Suppl.*: pl. 6, figs. 4–5). The type specimens have been lost but the figures are so excellent that it is easy to recognize many essential characters.

11. Recent studies of mine, based on 109 specimens of the species generally known as " *Cratena* " *viridis* Forbes, 1840, have shown this species to be very variable in colour but very constant in the arrangement of the cerata (papillae) on the back. It was found not only that the species *viridis* Forbes is the same as *caerulea* Montagu but also that *Eolis northumbrica* of Alder & Hancock is extremely similar in all the important characters. Even the light olive colour of the cerata, as indicated on Eliot's pl. 6, fig. 4, is exactly as found in many of my specimens of *viridis*. Also, the shape of this appendage shows that it is somewhat contracted in the same manner as it was in my specimens when they did not thrive too well, e.g. because the water was too warm. One of my specimens in such a state showed slight annulations on the rhinophores in the manner characteristic of *Eolis northumbrica* and which, when preserved, may become exaggerated (cf. Eliot, pl. 6, fig. 5). There seems hardly any doubt that the alleged " generic " character which is the only one distinguishing the so called genus *Diaphoreolis*, is nothing but a structure caused by poor state of the specimens, which, then, would be of the same species as *caerulea* (or *viridis*). Then, *Diaphoreolis* will have priority over *Catriona* and, if *Trinchesia* is not accepted in the sense here proposed, will become the valid name for the genus here under consideration. These are the reasons for my now proposing that the Commission use its plenary powers to suppress the name *Diaphoreolis* for the purposes of the Law of Priority. There is no reason to suppress the specific name *northumbrica* since it cannot well become any threat to stability in nomenclature.

12. Gmelin, 1791 (*Syst. Nat.* (ed. 13) **1** (6) : 3105) described a species *Doris pennata* with the usual brief description and a reference to " Bomme act. Vliss. 3 p. 292 t. 3 f. 2. ". Now, v. Benthem Jutting & Engel (1936, *Fauna Neth.* **8** : 66) synonymize this species with *Eolis aurantia* Alder & Hancock, 1842, and from the description given by Gmelin they seem to be correct in their identification. This would mean that the well established name *aurantia* would fall as a synonym of the totally forgotten name *pennata* Gmelin, 1791. The continued use of the former name should be ensured by the suppression under the plenary powers of *pennata* Gmelin, 1791.

13. The International Commission on Zoological Nomenclature is therefore asked:

(1) to use its plenary powers:
    (a) to suppress the generic name *Diaphoreolis* Iredale & O'Donoghue, 1923, for the purposes of the Law of Priority but not for those of the Law of Homonymy;
    (b) to suppress the specific name *pennata* Gmelin, 1791, as published in the binomen *Doris pennata*, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Trinchesia* Ihering, 1879 (gender: feminine), type-species, by designation by Pruvot-Fol, 1954, *Doris caerulea* Montagu, 1804, on the Official List of Generic Names in Zoology;

(3) to place the following specific names on the Official List of Specific Names in Zoology:

  (a) *caerulea* Montagu, 1804, as published in the binomen *Doris caerulea* (type-species of *Trinchesia* Ihering, 1879);

  (b) *aurantia* Alder & Hancock, 1842, as published in the binomen *Eolis* (sic) *aurantia*;

(4) to place the generic name *Diaphoreolis* Iredale & O'Donoghue, 1923 (as suppressed under the plenary powers in (1) (a) above) on the Official Index of Rejected and Invalid Generic Names in Zoology;

(5) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology:

  (a) *pennata* Gmelin, 1791, as published in the binomen *Doris pennata* (as suppressed under the plenary powers in (1) (b) above);

  (b) *aurantiaca* Alder & Hancock, 1851, as published in the binomen *Eolis aurantiaca* (an invalid emendation of *aurantia* Alder & Hancock, 1842).

GODIVA MACNAE, 1954 (GASTROPODA): PROPOSED ADDITION TO THE OFFICIAL LIST AS A REPLACEMENT FOR *HERVIA* AUCTT. (NEC BERGH, 1871). Z.N.(S.) 1107

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

In a paper by Bergh (1871, *Vid. Medd. Dansk. naturh*, Foren. **1871** : 183) enumerating Danish nudibranchs, the new form *Hervia modesta* Bergh n.g., n.sp. was mentioned, with accompanying generic diagnosis but no special diagnosis for the sole species. Another species, described immediately below as *Matharena oxyacantha* n.g., n.sp. has proved to refer to the common species *Favorinus branchialis* Müller, 1776. The last genus and species does not concern us here but illustrates that Bergh on this occasion was rather careless in his identifications.

2. A detailed description of both the above mentioned new genera and species was given by Bergh in 1875 (*Verh. zool. -bot. Ges. Wien* **1874** : 15, 16, 18). It appears beyond doubt that *Hervia modesta* is to be referred to the genus *Facelina* Alder & Hancock, 1855 (the " Kissen " on which the papillae of the back are placed are found only in this Northern Atlantic genus, and the radula is identical with that of *Facelina*). There does not seem to be any doubt that the species to which *Hervia modesta* should be referred is *Facelina auriculata* Müller, 1776. Bergh seems to have been misled in his determination of the genus *Hervia* by the fact that the specimen did not show the normal and rather conspicuous annulation of the rhinophores characteristic of *Facelina*. The mistake led him further astray in 1888 (*Verh. zool. -bot. Ges. Wien* **38** : 677) when he had received a specimen from Amboina which, because of the horseshoe shaped rows of cerata on the back, and of the relatively simple rhinophores he identified as belonging to that same genus *Hervia*, and called the species *rosea*. In fact, the specimen from Amboina belonged to a separate genus now referred to a related subfamily the FAVORININAE (or RIZZOLIINAE). The new genus thus escaped getting a valid name.

3. Since the year 1910, there has been much confusion as to what species should be referred to *Hervia* because most authors in the Indo-Pacific area, not knowing anything about the original *Hervia modesta*, used the species from Amboina as a sort of " type ". The difficulties, however, are gradually being cleared away by removal of the species which should more correctly be placed in the genera *Cuthona* and *Trinchesia* (*Cratena* auctt.). In this way at least the Japanese authors are now attaining a rather precise definition of what they understand by the name *Hervia*. Taking into account, however, the enormous confusion of many Aeolid genera, in which the name *Cratena* and *Hervia* are the centres of misunderstandings, it seems better to follow Macnae (1954, *Ann. Natal Mus.* **13** : 20) who established the new name *Godiva* Macnae, 1954, for *Hervia* auctt. non Bergh, 1871, with the type *Hervia quadricolor* Barnard, 1927 (*Ann. S. Afr. Mus.* **25** : 203), rather than to ask for the use of the plenary powers to change the type-species of *Hervia*. This procedure is the one which I now

propose to follow, and it has been made still more necessary by the events described in the following paragraphs.

4. Bergh (1880, *Verh. zool. -bot. Ges. Wien* **1880** : 156) described a new species as *Rizzolia modesta* from Japan. Baba (1937, *J. Dep. Agric. Kyushu Imp. Univ.* **5** : 329) referred this species to the genus *Cuthona*, subgenus *Hervia*, thereby establishing a case of secondary homonymy between this species and *Hervia modesta* Bergh, 1871. Baba consequently changed the specific name of the junior homonym to *Cuthona* (*Hervia*) *japonica* n.nov. This change is entirely based on the misunderstanding of the generic concept *Hervia*, but it mixes this name still more into the confusion. Macnae (1954, *Ann. Natal Mus.* **13** : 22 changed the name used by Baba back to *Godiva modesta* (Bergh, 1880) but under Code Art. 59c the species should be known under the replacement name *japonica* Baba, 1937.

5. The last development in these matters is the change by Pruvot-Fol (1954, *Faune France* **58** : 388) who regards *Hervia modesta* Bergh, 1871, as a species of *Rizzolia*. As mentioned above this species is certainly *Facelina auriculata* Müller, 1776, and never has any species of *Rizzolia* been found in Northern European waters. When, therefore, Pruvot-Fol is of the opinion that the type-species, *modesta* Bergh, 1871, of *Hervia* Bergh is probably the same species at *Doris peregrina* Gmelin, she is certainly in error. Her action means thas *Hervia modesta* Bergh 1871, again becomes a senior homonym of " *Hervia modesta* (Bergh, 1880) ", a confusion which it is imperative to avoid. Still worse, the action of Pruvot-Fol means that *Hervia* also becomes involved in another confusion in that to the names *Hervia* and *Cratena** have now been attributed the same type-species.

6. The International Commission is therefore asked:

(1) to place the generic name *Godiva* Macnae, 1954 (gender: feminine), type-species, by original designation, *Hervia quadricolor* Barnard, 1927, on the Official List of Generic Names in Zoology;

(2) to place the following specific names on the Official List of Specific Names in Zoology:

  (a) *quadricolor* Barnard, 1927, as published in the binomen *Hervia quadricolor* (type-species of *Godiva* Macnae, 1954);

  (b) *japonica* Baba, 1937, as published in the binomen *Cuthona* (*Hervia*) *japonica*.

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* See application Z.N.(S.) 1104 *Bull. Zool. Nomencl.* 21: 48-49

APPLICATION FOR THE REJECTION FOR NOMENCLATORIAL PURPOSES OF THE PAMPHLET BY J. HÜBNER ENTITLED *ERSTE ZUTRÄGE ZUR SAMMLUNG EXOTISCHER SCHMETTERLINGE* PRINTED IN 1808. Z.N.(S.) 1611

By I. W. B. Nye (*British Museum* (*Natural History*), *London*).

1. The purpose of this application is to ask the International Commission on Zoological Nomenclature:

(a) To rule that the incomplete pamphlet of Jacob Hübner, dated 1808, entitled *Erste Zuträge zur Sammlung exotischer Schmetterlinge*, has not been published within the meaning of the *International Code of Zoological Nomenclature* (1961), Article 8, and therefore that neither the generic nor the specific names used in the pamphlet are available for nomenclatorial purposes unless made available for use as from another date.

(b) To place on the Official List of Generic Names in Zoology the correct usage of the generic names proposed in the pamphlet named above.

(c) To place on the Official Index of Rejected and Invalid Generic Names in Zoology the incorrect usages of the generic names proposed in the pamphlet named above.

2. Before commencing the discussion of this application it is necessary, owing to the similarity of some of the titles, to list some of the works of Hübner and to indicate which of them are relevant to the present issue:

(a) *Geschichte europäischer Schmetterlinge*, [1793]–[1842]. Not relevant.
(b) *Sammlung europäischer Schmetterlinge*, 1796–[1838]. Not relevant.
(c) *Sammlung exotischer Schmetterlinge*, 1806–[1838]. Not relevant.
(d) *Tentamen*, [1806]. Relevant, see paragraph 3.
(e) *Erste Zuträge zur Sammlung exotischer Schmetterlinge*, 1808. Abbreviated to *Erste Zutr.* Relevant, see paragraph 6.
(f) *Zuträge zur Sammlung exotischer Schmettlinge* [sic], [1808]–1818, volume 1. Abbreviated to *Zutr. Samml. exot. Schmett.*
  (i) 35 plates of numbered but unnamed illustrations published during the period [1808]–1818. Relevant, see paragraph 7(a).
  (ii) Text referring to the numbered illustrations but published separately in 1818. Relevant, see paragraph 7(b).
(g) *Verzeichniss bekannter Schmettlinge* [sic], 1816–[1826]. Not relevant.

3. In or about 1806, J. Hübner distributed a single quarto sheet printed on both sides entitled *Tentamen determinationis digestionis atque denominationis singularum stirpium Lepidopterorum, peritis ad inspiciendum et dijudicandum communicatum*, a Jacobo Hübner. A facsimile of this work is provided by Hemming (1937, *Hübner* **1** : 599–600). This *Tentamen* presented the plan of a classification of the Lepidoptera in which each of 107 *stirpes* (equivalent to present day genera) were used in combination with a single specific name. The importance of the *Tentamen* lay in the fact that out of the 107 generic names, 94

were used for the first time. Whether or not the names in the *Tentamen* were to be regarded as available for nomenclatorial purposes, resulted in controversy for many years culminating in the application for a ruling by the International Commission on Zoological Nomenclature. The results of this application were published in 1926 in *Opinion* 97, the summary of which is as follows:

> "SUMMARY.—Hübner's *Tentamen*, 1806, was obviously prepared essentially as a manifolded manuscript, or as a proof sheet (cf. Opinion 87), for examination and opinion by a restricted group of experts *i.e.* in *Lepidoptera*, and not for general distribution as a record in Zoology. Accordingly, the conclusion that it was published in 1806 is subject to debate. Even if the premise be admitted that it was published in 1806, the point is debatable whether the contained binomials should be construed as generic plus specific names. Even if it be admitted that the binomials represent combinations of generic plus specific names, they are essentially *nomina nuda* (as of the date in question) since authors who do not possess esoteric information in regard to them are unable definitely to interpret them without reference to later literature. If published with more definite data at later dates, these names have their status in regard to availability as of their date of such republication."

4. By present day standards the combinations of generic plus specific names referred to in the above summary would not now be regarded as *nomina nuda* provided that the specific name was available within the meaning of the *International Code of Zoological Nomenclature* (1961) : Articles 10–15. The unsatisfactory wording of the summary of Opinion 97 was later fully realised and in 1948 the Secretary of the International Commission, at its Paris Session gave proposals (*Bull. zool. Nomencl.* (1950) **3** : 128) for the clarification of the Rulings given in certain of the older Opinions including that of Opinion 97. The Commission (*Bull. zool. Nomencl.* (1950) **4** : 337) agreed that:

> ". . . as regards Opinion 97, the entry to be made in the appropriate Schedule should be that this leaflet was not published within the meaning of Article 25 and therefore that the new names which appeared therein did not acquire availability as from the date on which copies of that leaflet were distributed by its author; . . ."

5. The *Tentamen* is now nomenclatorially dead but its relevance in the present issue lies in the fact that from the time of its distribution in 1806, authors have accepted many of the generic names proposed in it, all of which were monotypic and based on Palaearctic species. When Opinion 97 was being discussed in 1926 it was accepted that the next published use of the *Tentamen* generic names would make them nomenclatorially available. In nearly all cases this next usage, by Hübner himself in his other works or by Ochsenheimer in 1816, was for the same concept as the usage in the *Tentamen*. But at the time of Opinion 97 nothing was known of the existence of the *Erste Zuträge* of 1808. In the latter pamphlet, all 38 of the generic names used in it, all of which had previously been used in the *Tentamen* for a concept based on a Palaearctic species, were then applied to North and South American species, in many cases for an entirely different generic concept.

6. In 1808, J. Hübner printed a four sheet pamphlet which is the subject of this

application, entitled " *Erste Zuträge zur Sammlung exotischer Schmetterlinge* ". A facsimile of this work is provided by Hemming (1937, *Hübner* **1** : 443–450). In a short introduction Hübner states that lepidopterists in foreign countries (America and Columbia are named on the title page) had sent him specimens of a large number of new species which he proposed to figure and describe in a work entitled *Zuträge zur Sammlung exotischer Schmetterlinge*. In the next two paragraphs he went on to say that he was giving the names of the species which he intended to figure and describe in the forthcoming *Zuträge*. He then listed 75 species and above each placed two numbers which ran consecutively from 1 to 150. At the end of this he described in detail each of the first four species on the list and started the description of the fifth, but this breaks off at the bottom of the page after only two lines.

7(a). During the period [1808]-1818, Hübner published the plates of the first volume of his *Zuträge zur Sammlung exotischer Schmettlinge* (sic). The work was issued, without a title page, as a series of 35 unnumbered plates containing 200 consecutively numbered illustrations. Each of 100 species was figured twice. No names nor any word of text occurs on any of the plates. The present application concerns only the first 75 species, i.e. figs. 1–150, published on 26 plates during the period [1808]–1818.

7(b). In 1818, Hübner published the text of volume 1 of his *Zuträge zur Sammlung exotischer Schmettlinge* (sic), consisting of the title page and named descriptions of the first hundred species corresponding with figs. 1–200, (each species being represented by two figures). The present application, however, concerns only the generic and specific names of the first 75 species as these had already been named in the *Erste Zuträge*.

8(a). Hemming (1935, *Stylops* **4** : 38–48) in his work entitled " A note on Jacob Hübner's *Erste Zuträge zur Sammlung exotischer Schmetterlinge* of 1808 ", commenced with the following paragraph:

> " Through the kindness of Mr. H. J. Turner, the library of the Royal Entomological Society of London has recently received a photostat copy of a very important and hitherto unnoticed pamphlet published by Jacob Hübner in 1808, which had been sent to him by Dr. Walther Horn. The original from which this copy was made is in the Deutsches Entomologisches Institut at Berlin-Dahlem. Another copy of the same pamphlet is in the possession of Herrn Friedländer and Sohn of Berlin."

8(b). Hemming then gave a description of the *Erste Zuträge* similar in substance to the description in paragraph 5 above. He then continued:

> " A comparison of the names given in this pamphlet with those given in the first volume of Hübner's well-known *Zuträge zur Sammlung exotischer Schmettlinge* proves beyond question that the names given in the pamphlet refer to the first 75 of the species figured in the first volume of that work, the title page of which is dated 1818. All of the generic names used in the pamphlet are different from those employed in the *Zuträge*, but 54 [*recte* 56] out of the 75 of the specific names are identical and 11 more differ only in spelling. In 8 cases only, are different names used. In addition, the references to the figure numbers are in every case the same.
>
> " The first conclusion to be drawn from this evidence is that the first four

> species figured and named in the *Zuträge* of 1818 were fully described in the pamphlet (the *Erste Zuträge*) of 1808. It is therefore from 1808 that the names of these species should be dated. Further they must be regarded as having been first described under the generic and specific names given in the *Erste Zuträge* of 1808 and not under those assigned to them in the first volume of the *Zuträge* of 1818."

8(c). Hemming then developed his argument further and after giving evidence to show that the first 25 plates of the *Zuträge zur Sammlung exotischer Schmettlinge* had been published by March 1814, he continued:

> " It is at this point that the second important piece of evidence is afforded by the *Erste Zuträge* of 1808, for by the numbers which it gives it is possible to affix a name to each of the species figured on the first 25 plates of the first volume of the *Zuträge* of 1818. Thus we see that by March 1814, each of these species had been figured (in the first volume of the *Zuträge*) and had been given a name (in the *Erste Zuträge* of 1808). With the exception of those figured on plates 1 and 2 (i.e. fig. 1–12), all these species must therefore in future be recognised as having been published by 1814 (instead of by 1818 as hitherto supposed) and must bear the names given in the *Erste Zuträge* of 1808 and not those given in the well-known text of the *Zuträge*, in every case in which the names given in the two works differ."

9. It is my contention that these conclusions are based on the false premise quoted in paragraph 8(a), that the *Erste Zuträge* was a " . . . pamphlet published by Jacob Hübner . . . ". In my opinion the *Erste Zuträge* was never published but was a printer's proof. In support of this the following five paragraphs are submitted.

10. There are three known copies of the *Erste Zuträge*; one in the Deutsches Entomologisches Institut, East Berlin; one in the Naturhistorisches Museum, Vienna; and one in the Museo Civico di Storia Naturale, Milan. Hemming, as quoted in paragraph 8(a), knew of the copy in the Deutsches Entomologisches Institut and added, " Another copy of the same pamphlet is in the possession of Herrn Friedländer and Sohn of Berlin ". I therefore wrote to this company concerning their copy and asked for their opinion on whether it had been published. In their reply they said, " We cannot find anything about *Erste Nacträge*, 1808. We suppose that these *Erste Zuträge*, 1808, have never been published ". I assume that *Nacträge* must be a *lapsus calami* for *Zuträge*.

(a) The former Director of the Deutsches Entomologisches Institute, Professor Dr. Hans Sachtleben, has given me the following information concerning the way in which the Institute received their copy: " After the death of G. A. W. Herrich-Schäffer; Dr. Gustav Kraatz, the founder of our Institute, visited Regensburg in 1874 and 1875, and there he visited Herrich-Schäffer's son. On these occasions he acquired a part of G. A. W. Herrich-Schäffer's library. Among these manuscripts, etc., there were some of Jacob Hübner's original drawings, and, so far as I know, the Institute received the *Erste Zuträge* at the same time ". It seems probable therefore that this copy was among Hübner's personal papers.

(b) Professor Dr. M. Beier of the Naturhistorisches Museum, Vienna, has informed me that, " Die *Erste Zuträge zur Sammlung exotischer Schmetterlinge* sind in unserer Bibliothek mit den anderen *Zuträge* in einem gemeinsamen Band gebunden. Allerdings umfasst das Exemplar der *Erste Zuträge* nur die Seiten 1–8 und ist daher unvollständig. Die Zeilenlänge beträgt 13·8 cm. Wie es in unseren Besitz gelangte, ist nicht mehr zu ermitteln. Nach Papier und Druck scheint es sich um eine publizierte Ausgabe und nicht um ein Korrektur-exemplar zu handeln."

(c) Professor Cesare Conci of the Museo Civico di Storia Naturale, Milan, has informed me that, " L'entrata del fascicolo nel nostro Museo é molto antica, e non é possible appurare da chi, come e quando ci é pervenuto."

11. The plates of volume 1 of the *Zuträge zur Sammlung exotischer Schmettlinge* are not rare and the figures they contain bear neither names nor descriptions other than the figure numbers. Had the subscribers received the *Erste Zuträge* as a preliminary text giving the names to the first 75 species, it would, in most cases, have been kept together with the plates as it would have provided the only names for the figures for the ten years from 1808 until 1818. More copies of the *Erste Zuträge* would surely have survived.

12. The text of volume 1 of the *Zuträge zur Sammlung exotischer Schmettlinge*, when compared with the *Erste Zuträge*, uses different names for all the genera, and eight of the species. Eleven other specific names differ in spelling, yet in the introduction no mention of a previous text (the *Erste Zuträge*) is made even though Hübner does refer to his 1806 " Versuch " [=*Tentamen*], his *Sammlung exotischer Schmetterlinge*, and his *Verzeichniss bekannter Schmettlinge.*

13. All three known copies of the *Erste Zuträge* are incomplete and stop abruptly at the end of the second line of the description of the fifth new species out of 75 listed. This in itself in no way precludes the pamphlet from being accepted as being published, but becomes significant when considered with the fact that when the *Zuträge zur Sammlung exotischer Schmettlinge* text was issued all the generic names were changed. This fits in with the hypothesis that the *Erste Zuträge* was a printer's proof with which Hübner was not satisfied.

14. The evidence which establishes that the *Erste Zuträge* was not published and was only a printer's proof is provided by Hübner himself who supplemented his income by the sale of his works as a naturalist and being his own publisher, he issued Sale Lists.

(a) In Hübner's Sale List dated 22 December 1807, (a facsimile of which is provided by Hemming, 1937, *Hübner* **2** : 11), there was listed as available for sale, part of the *Sammlung exotischer Schmetterlinge* but no other work on exotic lepidoptera.

(b) In Hübner's Sale List dated 6 April 1809, (a facsimile of which is provided by Hemming, *loc. cit.*: 13), the entry below the *Sammlung exotischer Schmetterlinge* was as follows:

> " *Beyträge zur Sammlung exotischer Schmetterlinge.*
>
> Diese sollen bloss jene Schmetterlinge enthalten, die ich nur einzeln erhalten konnte, und die noch nirgend abgebildet zu finden sind. Davon sind erst 2 Blätter fertig. Jedes Blatt wird für 36Kr. berechnet."

Although the *Erste Zuträge* was dated 1808 no mention was made of this text in this Sale List of publications available in April 1809. It is therefore improbable that the *Erste Zuträge* was obtainable by purchase or free distribution.

(c) In Hübner's Sale List dated 20 June 1813, (a facsimile of which is provided by Hemming, *loc. cit.*: 17), there was the following entry:

> " *Zuträge zur Samlung* [sic] *exotischer Schmetterlinge*, aufgenommen von Jac. Hüb. in Augsb. 1806–1812.
>
> " Davon ist bisher nichts gefertigt, als 25 Quartblätter Abbildungen das mancherley Horden. Von sämmtlichen Gegenständen wird kaum in einem Werke irgendwo einer oder anderer abgebildet zu finden seyn, und gewiss nirgend mit gleicher Genauigkeit die Natur in allen Gliedmassen und Farben nachgeahmt.
>
> " Jedes Blatt wird mit 36Kr. bezahlt.
>
> " Der Text erscheint künftig. Noch ist Stoff zu mehreren Blättern vorräthig."

This entry shows that 25 plates were published by 1813 but that the text was not then ready. But the *Erste Zuträge* text included names for the first 26 plates. Confirmation is thus given that the *Erste Zuträge* was not obtainable.

15. Having established that the *Erste Zuträge* was not published and is therefore not available for nomenclatorial purposes, it can be argued that a ruling to that effect by the International Commission on Zoological Nomenclature is all that is required. However, since the generic names as used in the *Erste Zuträge* have been listed in Neave's *Nomenclator Zoologicus* it is desirable that they are placed individually on the Official Index of Rejected and Invalid Generic Names in Zoology. And, similarly, owing to the complications which have arisen in the use of many of these names it is desirable that their correct usage is placed on the Official List of Generic Names in Zoology. In the following catalogue the usage of each of the 38 generic names occurring in the *Erste Zuträge* will be traced chronologically and the Commission will be requested to confirm the correct usage (printed in bold type) of each name. Each of these generic names will then be nomenclatorially available from the stated date and if not a *nomen oblitum* will compete for priority with any objective or subjective synonym.

(a) *Achatia* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Achatia Hübner, 1808, *Erste Zutr.*: 4, 6, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 59–60.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Achatia Hübner, [1813], *Samml. exot. Schmett.* **1** : pl. [194] (gender: feminine) (type-species, by monotypy: *Achatia distincta* Hübner, [1813], *Samml. exot. Schmett.* **1** : pl. [194]) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(b) *Agrotis* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Agrotis Hübner, 1808, *Erste Zutr.* : 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 71–72.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Agrotis Ochsenheimer, 1816, *Schmett. Europa* **4** : 66 (gender: feminine) (type-species, by subsequent designation by Curtis, 1827 (*Brit. Ent.* **4** : 165): *Noctua segetum* [Denis & Schiffermüller], 1775, *Ankündung Syst. Werkes Schmett. Wien. Gegend* : 81) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(c) *Apatele* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Apatele Hübner, 1808, *Erste Zutr.*: 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 107–108.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Apatele Hübner, 1822, *Syst. -alph. Verz.*: 21, 28. (gender: feminine) (type-species, by subsequent designation by Westwood, 1840 (*Synopsis Gen. Brit. Ins.*: 95): *Phalaena* (*Noctua*) *leporina* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 510) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(d) *Ascalapha* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Ascalapha Hübner, [1809], *Samml. exot. Schmett.* **1** : pl. [196], [197] (gender: feminine) (type-species, by monotypy: *Phalaena* (*Bombyx*) *odorata* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 505, cited by Hübner as "*Ascalapha odora*" Linnaeus, 1764, an unjustified emendation of *odorata*) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Ascalapha Hübner, 1808, *Erste Zutr.*: 4–6, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 45–46, 63–64, 75–76, 117–118.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(e) *Blephara* Hübner, 1808, *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 29–30.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Blephara has not been used again. A similar name has subsequently been proposed i.e. *Blepharidia* Hübner, 1822, see below.

(f) *Blepharum* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Blepharum Hübner, 1808, *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 57–58.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Blepharum has not been used again. A similar name has subsequently been proposed i.e. *Blepharidia*, Hübner, 1822, see below.

Blepharidia Hübner, 1818, *Zutr. Samml. exot. Schmett.* **1** : 11, 14 (type-species, by subsequent designation by Berio, 1957 (*Mem. Soc. ent. Ital.* **36** : 9): *Ephesia amica* Hübner, 1818, *Zutr. Samml. exot. Schmett.* **1** : 14). I do not consider that this name has been used by Hübner, 1818, in the generic sense, but it is included here as it has been so accepted by Berio.

First published as a synonym and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Blepharidia Hübner, 1822, *Syst. -alph. Verz.*: 21, 26 (gender: feminine) (type-species, by subsequent designation by Berio, 1957 (*Mem. Soc. ent. Ital.* **36** : 9): *Phalaena* (*Noctua*) *fraxini* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 512) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(g) *Chrysaor* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Chrysaor Montfort, 1808, *Conch.* **1** : 378 (gender: masculine) (type-species, by original designation: *Chrysaor hercininus* Montfort, 1808, *Conch.* **1** : 379) (Class Cephalopoda, Order Ammonoidea).

To be placed on the Official List of Generic Names in Zoology.

Chrysaor Hübner, [1809], *Samml. exot. Schmett.* **1** : pl. [161].

A junior homonym of *Chrysaor* Montfort, 1808, and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Chrysaor Hübner, [1808], *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 41–42.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(h) *Diphthera* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Diphthera Hübner, [1809], *Samml. exot. Schmett.* **1** : pl. [193] (gender: feminine) (type-species, by monotypy: *Diphthera elegans* Hübner, [1809], *Samml. exot. Schmett.* **1** : pl. [193]) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Diphthera Hübner, 1808, *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 25–26.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(i) *Elasmion* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Elasmion Hübner, 1808, *Erste Zutr.*: 6, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 143–144.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Elasmion Hübner, 1822, *Syst. -alph. Verz.*: 68, 71 (gender: feminine) (type-species, by subsequent designation by T. B. Fletcher (1929, *Mem. Dept. Agric. India* (*Ent. Series*) **11** : 74): *Phalaena* (*Tinea*) *degeerella* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 540, cited by Fletcher as "*geerella*" Hübner, 1796, which is an unjustified emendation of *degeerella*) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Elasmia Hübner, 1822, *Syst. -alph. Verz.*: 62.

An incorrect original spelling of *Elasmion* Hübner, 1822, and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(j) *Epirrita* Hübner, [1806], *Tentamen:* 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Epirrita Hübner, 1808, *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : 21–22.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Epirrita Hübner, 1822, *Syst. -alph. Verz.*: 38, 42 (gender: feminine) (type-species, by subsequent designation by Prout (1897, *Ent. Rec.* **9** : 247): *Geometra dilutata* [Denis & Schiffermüller], 1775, *Ankündung syst. Werkes Schmett. Wein. Gegend* : 109) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(k) *Erastria* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Erastria Hübner, [1813], *Samml. exot. Schmett.* **1** : pl. [203] (gender: feminine) (type-species, by monotypy: *Erastria dissimilaria* Hübner, [1813], *Samml. exot. Schmett.* **1** : pl. [203]) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Erastria Hübner, 1808, *Erste Zutr.*: 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 103–104.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(l) *Erpyzon* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Erpyzon Hübner, 1808, *Erste Zutr.*: 4, 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 19–20, 91–92.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Erpyzon has not been used again. A similar name has subsequently been proposed i.e. *Herpyzon* Hübner, 1822, see below.

Herpyzon Hübner, 1822, *Syst. -alph. Verz.*: 52, 56 (gender: neuter) (type. species, by subsequent designation by Berio, 1957 (*Mem. Soc. ent-Ital.* **36** : 13): *Phalaena* (*Pyralis*) *proboscidalis* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 533) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(m) *Euclidia* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Euclidia Hübner, 1808, *Erste Zutr.*: 3.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Euclidia Ochsenheimer, 1816, *Schmett. Europa* **4** : 96 (gender: feminine) (type-species, by subsequent designation by Duponchel, 1829 (in Godart, *Hist. nat. Lep. France* **7** : 72): *Phalaena* (*Noctua*) *glyphica* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 510) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(n) ***Glaucopis*** Gmelin, 1788, in Linnaeus, *Syst. Nat.* (ed. 13) **1** : 363 (gender: feminine) (type-species, by monotypy: *Glaucopis cinerea* Gmelin, 1788, in Linnaeus, *Syst. Nat.* (ed. 13) **1** : 363) (Class Aves).

To be placed on the Official List of Generic Names in Zoology.

Glaucopis Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Glaucopis Fabricius, 1807, *Mag. f. Insektenk.* (*Illiger*) **6** : 289.

A junior homonym of *Glaucopis* Gmelin, 1788, and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Glaucopis Hübner, 1808, *Erste Zutr.*: 3, 4, 5, 6, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 9–10, 15–16, 65–66, 93–94, 133–134.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(o) *Glaee* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Glaee has not been used again. Similar names have subsequently been proposed i.e. *Gloee* Hübner, 1808, [1809]–[1813] and *Gloia* Hübner, 1822, see below.

Gloee Hübner, 1808, *Erste Zutr.*: 4, 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 23–24, 27–28, 73–74.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Gloee has not been used again. A similar name has subsequently been proposed i.e. *Gloia* Hübner, 1822, see below.

Gloia Hübner, 1818, *Zutr. Samml. exot. Schmett.* **1** : 16 (type-species, by subsequent designation by Berio, 1957 (*Mem. Soc. ent. Ital.* **36** : 14):

Xestia chlorophа Hübner, 1818, *Zutr. Samml. exot. Schmett.* **1** : 16. I do not consider that this name has been used by Hübner, 1818, in the generic sense, but it is included here as it has been so accepted by Berio.

First published as a synonym and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Gloia Hübner, 1822, *Syst. -alph. Verz.*: 21, 37 (gender: feminine) (type-species, by subsequent designation by Curtis 1829 (*Brit. Ent.* **6** : 268): *Phalaena* (*Noctua*) *vaccinii* Linnaeus, 1761, *Faun. Suec.* (ed. 2): 320). Designated as the type-species of *Glaea* Hübner, an incorrect subsequent spelling. (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Glaea Hübner, Curtis, 1829, *Brit. Ent.* **6** : 268. (type-species, by original designation: *Phalaena* (*Noctua*) *vaccinii* Linnaeus, 1761, *Faun. Suec.* (ed. 2): 320).

An incorrect subsequent spelling for *Gloia* Hübner, 1922.

(p) ***Hamadryas*** Hübner, [1806], *Samml. exot. Schmett.* **1** : pl. [47] (gender: feminine) (type-species, by monotypy: *Papilio* (*Nymphalis*) *amphinome* Linnaeus, 1767, *Syst. Nat.* (ed. 12): 779) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Hamadryas Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278, and already placed on the Official Index of Rejected and Invalid Generic Names in Zoology: Name No. 82).

Hamadryas Hübner, 1808, *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 37–38.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(q) *Heliaca* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Heliaca Hübner, 1808, *Erste Zutr.*: 5 *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 115–116, 119–120.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Heliaca Hübner, 1822, *Syst. -alph. Verz.*: 52, 53 (gender: feminine) (type-species, here designated: *Phalaena* (*Geometra*) *cingulata* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 529, cited by Hübner as "*cingulalis*" Schiffermüller, 1775, which is an unjustified emendation of *cingulata*) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(r) *Heliothis* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Heliothis Hübner, 1808, *Erste Zutr.*: 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 81–82.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Heliothis Ochsenheimer, 1816, *Schmett. Europa* **4** : 91 (gender: feminine) (type-species, by subsequent designation by Samouelle, 1819 (*Entomologist's useful Compendium*: 252): *Phalaena* (*Noctua*) *dipsacea* Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1** : 856) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(s) *Hipocrita* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Hipocrita Hübner, 1808, *Erste Zutr.*: 4, 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 51–52, 89–90.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Hipocrita Hübner, [1810], *Samml. exot. Schmett.* **1** : pl. [189].

A subsequent incorrect spelling of *Hypocrita* Hübner, [1807], see below, and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Hypocrita Hübner, [1807], *Samm. exot. Schmett.* **1** : pl. [187] (gender: feminine) (type-species, by monotypy: *Hypocrita dichroa* Hübner, [1807], *Samml. exot. Schmett.* **1** : pl. [187]) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Hypocrita Hübner, 1808, *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 17–18, 43–44.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(t) *Hypercompe* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Hypercompe Hübner, 1808, *Erste Zutr.*: 3.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Hypercompe Hübner, [1819], *Samml. exot. Schmett.* **1** : pl. [191] (gender: neuter). This genus when originally established contained a single species i.e. *Hypercompe eridane* (Cramer). The species figured by Hübner on pl. [191] above this name, is not *Phalaena eridanus* Cramer, 1775, but is *Phalaena icasia* Cramer, 1777, *fide* Seitz, 1919 (in Seitz, *Gross-Schmett. Erde* **6** : 319). In accordance with the *Int. Code zool. Nomencl.* 1961: Article 70 (a) the Commission is hereby requested to **use its plenary powers** to designate *Phalaena icasia* Cramer, 1777, *Uitl. Kapellen* **2** : 130, pl. 181, fig. E as the type-species.

To be placed on the Official List of Generic Names in Zoology.

(u) *Idia* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Idia Hübner, 1808, *Erste Zutr.*: 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 131–132.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Idia Lamouroux, 1816, *Hist. Polyp.*: 199 (gender: feminine) (type-species, by monotypy: *Idia pristis* Lamouroux, 1816, *Hist. Polyp.*: 200, pl. 5) (Class Coelenterata, Order Thecata).

To be placed on the Official List of Generic Names in Zoology.

(v) *Jaspidia* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Jaspidia Hübner, 1808, *Erste Zutr.*: 4, 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 53–54, 85–86.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Jaspidia Hübner, 1822, *Syst. -alph. Verz.*: 23, 36 (gender: feminine) (type-species, by subsequent designation by Grote, 1874 (*Bull. Buff. Soc. nat. Sci.* **2** : 8): *Noctua spoliatricula* [Denis & Schiffermüller], 1755, *Ankündung syst. Werkes Schmett. Wien. Gegend.*: 89) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(w) ***Lemur*** Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 29 (gender: masculine) (type-species, by subsequent designation by Thomas, 1911 (*Proc. zool. Soc. Lond.* **1911** : 129): *Lemur catta* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 30) (Class Mammalia).

Discussed in Opinion 122 and Direction 24 and already placed on the Official List of Generic Names in Zoology: Name No. 556.

Lemur Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Lemur Hübner, 1808, *Erste Zutr.*: 4, 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 31–32, 97–98.

Discussed in Direction 24 and as a junior homonym of *Lemur* Linnaeus, 1758, already placed on the Official Index of Rejected and Invalid Generic Names in Zoology: Name No. 358.

(x) *Mancipium* Hübner, [1806], *Tentamen:* 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Mancipium Hübner, [1807], *Samml. exot. Schmett.* **1** : pl. [141].

Suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy in Opinion 137, and already placed on the Official Index of Rejected and Invalid Generic Names in Zoology: Name No. 214.

Mancipium Hübner, 1808, *Erste Zutr.*: 4, 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 47–48, 77–78.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(y) *Najas* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Najas Hübner, [1807], *Samml. exot. Schmett.* **1** : pl. [60] (gender: masculine) (type-species, by monotypy: *Najas themis* Hübner, [1807], *Samml. exot. Schmett.* **1** : pl. [60].) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Najas Hübner, 1808, *Erste Zutr.*: 3.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(z) ***Nereis*** Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 654 (gender: feminine) (type-species, by subsequent designation by Hartman, 1948 (*Ark. Zool.* **42** (A) 1 : 63): *Nereis pelagica* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 654) (Class Polychaeta).

To be placed on the Official List of Generic Names in Zoology.

Nereis Hübner, [1806], *Samml. exot. Schmett.* **1** : pl. [1]. [2], [5]–[8], [12], [15].

A junior homonym of *Nereis* Linnaeus, 1758, and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Nereis Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Nereis Hübner, 1808, *Erste Zutr.*: 4–6, *nomen nudum* until [1809]–[1813]. *Zutr. Samml. exot. Schmett.* **1** : fig. 13–14, 123–124, 129–130, 141–142.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(aa) *Oreas* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Oreas Hübner, [1807], *Samml. exot. Schmett.* **1** : pl. [82] (type-species, by monotypy: *Papilio piera* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 465). Hemming (1934, *Gen. Names holarctic Butt.*: 30) designated *Papilio europa* Fabricius, 1775, as the type-species selected from the 15 species included in the genus by Hübner on a series of plates published between 1807 and 1819. As a result of more accurate dating Hemming (1937, *Hübner* **1** : 403) has fixed the date of publication of plate [82], which figures *Oreas piera* (Linnaeus), as between 2nd January and 22nd December 1807. No other species was included in the genus until 1808, so *Oreas* Hübner, [1807], is monotypic. The genus thus becomes an objective synonym of *Haetera* Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 284, see below. Opinion 137 is summarised as follows:

" Unless and until further evidence is forthcoming regarding the precise dates of 1807 on which were published (a) Fabricius's paper on generic names of Lepidoptera in the sixth volume of Illiger's *Magazine für Insektenkunde* and (b) certain plates of Hübner's *Sammlung exotischer Schmetterlinge*, the names proposed by

Fabricius shall have precedence over those proposed by Hübner . . ."

Oreas Hübner, [1807] is a junior objective synonym of *Haetera* Fabricius, 1807, and therefore to be placed on the Official Index of Rejected and Invalid Names in Zoology.

Haetera Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 284 (gender: feminine) (type-species, by subsequent designation by Scudder 1875 (*Proc. amer. Acad. Arts. Sci.*, Boston **10** : 182): *Papilio* (*Heliconius*) *piera* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 465) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Oreas Hübner, 1808, *Erste Zutr.*: 3.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(bb) *Palpita* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Palpita Hübner, [1808], *Samml. exot. Schmett.* **1** : pl. [209] (gender: feminine) (type-species, by monotypy: *Palpita unionalis* Hübner [1808], *Samml. exot. Schmett.* **1** : pl. [209]) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Palpita Hübner, 1808, *Erste Zutr.*: 5, 6, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 95–96, 101–102, 113–114, 137–138.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(cc) *Petrophora* Hübner, [1806], *Tentamen*: 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Petrophora Hübner, [1811], *Samml. exot. Schmett.* **1** : pl. [207] (gender: feminine) (type-species, by monotopy: *Petrophora divisata* Hübner, [1811], *Samml. exot. Schmett.* **1** : pl. [207]) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Petrophora Hübner, 1808, *Erste Zutre*: 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 111–112.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(dd) *Ptilodon* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Ptilodon Hübner, 1808, *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : 35–36.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Ptilodon Hübner, 1822, *Syst. -alph. Verz.*: 14, 15 (gender: feminine) (type-species, by subsequent designation by Grote, 1895 (*Abhandl. naturwiss. Vereins Bremen* **14** : 48): *Phalaena* (*Bombyx*) *camelina* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 507) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(ee) *Pyrophyla* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Pyrophyla has not been used again but *Pyrophila* Stephens, 1829, was later proposed, see below.

Prophyla Hübner, 1808, *Erste Zutr.*: 4 *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 67–68.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Prophyla has not been used again, Hübner subsequently used *Amphipyra* Ochsenheimer, 1816, in its place.

Amphipyra Ochsenheimer, 1816, *Schmett. Europa* **4** : 70 (gender: feminine) (type-species, by subsequent designation by Duponchel 1829 (in Godart, *Hist. nat. Lep. France* 7 (2) : 71): *Phalaena tragopoginis* Clerck, 1759, *Icones* **1** : pl. 1, fig. 5) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

Pyrophila Stephens, 1829, *Ill. Brit. Ent.*, *Haustellata* **2** : 164, (type-species, by subsequent designation by Westwood 1840 (*Synopsis Genera Brit. Ins.*: 94): *Phalaena tragopoginis* Clerck, 1759, *Icones* **1** : pl. 1, fig. 5).

A junior objective synonym of *Amphipyra* Ochsenheimer, 1818, see above.

(ff) *Rusticus* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Rusticus Hübner, [1807], *Samml. exot. Schmett.* **1** : pl. [102], [104] (type-species, by subsequent designation by Hemming, 1934 (*Entomologist* **67** : 156): *Papilio gnidus* Fabricius, 1787, *Mant. Ins.* **2** : 64) (Class Insecta, Order Lepidoptera).

Suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy in Opinion 137, and already placed on the Official Index of Rejected and Invalid Generic Names in Zoology: Name No. 213.

Rusticus Hübner, 1808, *Erste Zutr.*: 5, 6, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 87–88, 99–100, 120–122, 135–136.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(gg) *Sphecomorpha* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Sphecomorpha Hübner, 1808, *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 39–40, 49–50.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Sphecomorpha Newman, 1838, *Entom. Mag.* **5** : 396 (gender: feminine) (type-species, by monotypy: *Sphecomorpha chalybea* Newman, 1838, *Ent. Mag.* **5** (4) : 397) (Class Insecta, Order Coleoptera).

To be placed on the Official List of Generic Names in Zoology.

(hh) ***Teredo*** Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 651 (gender: feminine) (type-species, by subsequent designation by Children, 1822 (*Quart. J. Sci. Lit. Arts* **15** : 82): *Teredo navalis* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 651) (Class Pelecypoda).

Discussed in Opinion 94 and Direction 72 and already placed on the Official List of Generic Names in Zoology: Name No. 464.

Teredo Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Teredo Hübner, 1808, *Erste Zutr.*: 6, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 145–146.

Discussed in Direction 72 and, as a junior homonym of *Teredo* Linnaeus, 1758, already placed on the Official Index of Rejected and Invalid Generic Names in Zoology: Name No. 985.

(ii) *Terpne* Hübner, [1806], *Tentamen:* 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Terpne Hübner, *Erste Zutr.*: 6, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 139–140.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Terpne Hübner, 1822, *Syst. -alph. Verz.*: 38, 47 (gender: feminine) (type-species, by subsequent designation by Grote, 1902 (*Allg. Zeit. Ent.* **7** : 470): *Phalaena* (*Geometra*) *papilionaria* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 522) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(jj) *Tetrachila* Hübner, [1806], *Tentamen:* 2.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Tetrachila Hübner, 1808, *Erste Zutr.*: 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : 125–126.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Tetrachila Hübner, 1822, *Syst. -alph. Verz.*: 52, 75 (gender: feminine) (type-species, by present designation: *Phalaena* (*Tinea*) *pascuella* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 535) (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

(kk) *Tribonophora* Hübner, [1806], *Tentamen:* 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Tribonophora Hübner, 1808, *Erste Zutr.*: 5, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : 109–110.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Tribonophora has not been used again. A similar name has subsequently been proposed i.e. *Tribunophora* Hübner, 1822, see below.

Tribunophora Hübner, 1822, *Syst. -alph. Verz.*: 20, 37 (gender: feminine) (type-species, here designated: *Phalaena* (*Noctua*) *umbratica* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 515).

To be placed on the Official List of Generic Names in Zoology.

(ll) *Xanthia* Hübner, [1806], *Tentamen*: 1.

Used in a work rejected for nomenclatorial purposes in Opinions 97 and 278.

Xanthia Hübner, 1808, *Erste Zutr.*: 4, *nomen nudum* until [1809]–[1813], *Zutr. Samml. exot. Schmett.* **1** : fig. 61–62.

Used in an unpublished work and therefore to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

Xanthia Ochsenheimer, 1816, *Schmett. Europa* **4** : 82 (gender: feminine) (type-species, by subsequent designation by Curtis, 1825 (*Brit. Ent.* **2** : 84): *Noctua flavago* Fabricius, 1787, *Mant.* **2** : 160 (Class Insecta, Order Lepidoptera).

To be placed on the Official List of Generic Names in Zoology.

16. Regarding the specific names used in the *Erste Zuträge.* Out of 75 specific names, 19 differ from those applied in the *Zuträge zur Sammlung exotischer Schmettlinge* text to the same figures. To my knowledge none of the specific names as applied in the *Erste Zuträge* has been used in zoological literature, nor in Sherborn's Index Animalium, nor in any catalogues—with the exception of Hemming's work on Hübner. There therefore seems to be no need to place these names individually on the Official List of Rejected and Invalid Specific Names in Zoology, unless the Commission consider such a procedure desirable. If the *Erste Zuträge* is rejected for nomenclatorial purposes then the names as used in the *Zuträge zur Sammlung exotischer Schmettlinge* will automatically become available again.

17. The following is a summary in chronological order of the published opinions and usages of authors some of whom are in favour and others who are against the rejection of the *Erste Zuträge* in part or in whole.

(a) 1826–1934. No author contemporary with Hübner nor for over a hundred years after his death in 1826 is known to have ever mentioned the *Erste Zuträge* or used any of the names it contained, in place of the text of the *Zuträge zur Sammlung exotischer Schmettlinge.*

(b) Hemming (1935, *Stylops* **4** : 38–48) published a descriptive work on the *Erste Zuträge* (see paragraph 8), in which he stated that the names used in the *Erste Zuträge* must take priority over those used in the *Zuträge zur Sammlung exotischer Schmettlinge.*

(c) Hemming (1937, *Hübner*, **1** & **2**) published his authoritative treatise on the works of Jacob Hübner. It is a masterly synthesis of our existing knowledge and I am in complete agreement with him except on the question of the availability for nomenclatorial purposes of the *Erste Zuträge.* In the present application all dates relating to Hübner have been taken from this source.

(d) McDunnough (1938, *Mem. S. Calif. Acad. Sci.* **1** : 4) in the introduction to his " Check List of the Lepidoptera of Canada and the United States of America " wrote:

" It will be noted that no complete generic synonymy nor designation of genotypes is given in the ' List ' as it was considered advisable to economize on space as far as possible. Every effort, however, has been made to ascertain the correct genotypes according to the International Code of Zoological Nomenclature and it is hoped, in consequence, that stability for the various terms employed has been assured. In this connection it should, however, be pointed out that, although fully cognizant of the work, I have adopted neither the genera nor the genotypes validated in Hübner's *Erste Zuträge* of 1808. This pamphlet, which has been practically unknown and certainly never followed until its—to my mind—rather ill-advised ressurection by Hemming, is fully dealt with in this author's monumental two-volume work on Hübner, published by the Royal London Entomological Society in February, 1937. The recognition of this work would involve such far-reaching changes, particularly in the long-accepted generic and even subfamily terms of the Noctuidae that I feel that only harm and confusion would result from a strict adherence to the letter of the law in this case. I believe that in the interest of a stable nomenclature it should be definitely invalidated and hope that some such step will be taken by the International Committee in the near future."

(e) Tams (1939, *Entomologist* **72** : 70) in his work entitled " Changes in the generic names of some British moths " wrote:

> " *Agrotis* Ochs., 1816, *Schmett. Europa* **4** : 66.
>
> Type cited, 1827, Curtis: *Agrotis segetum* Schiff., 1775. In view of the fact that the first use of this generic name was *Agrotis* Hübner [1809–1813] type *Agrotis grata* Hübn. (sole species), it will be necessary to place before the International Commission on Zoological Nomenclature a request for the suspension of the rules in favour of the retention of *Agrotis* Ochs., 1816, with type *Agrotis segetum* Schiff., in order to avoid the hopeless confusion which will result from the strict adherence to the law of priority in this case."

Further down the page, however, Tams accepts the *Erste Zuträge* for *Apatele*:

> " *Apatele* Hübn., [1809–1813], *Erste Zutr.*: 5, and *Zutr. z. Samml. exot. Schmett.*, **1** : pl. 19.
>
> Type: *Apatele tritona* Hübn., [1809–1813], sole species and therefore type."

(f) Tams (1939, *Entomologist* **72** : 138) in his work entitled " Further notes on the generic names of British Moths " accepted *Euclidia* Hübner, 1808, and *Jaspidia* Hübner, 1808, from the *Erste Zuträge* but accepted *Heliothis* Ochsenheimer, 1816, instead of *Heliothis* Hübner, 1808, without any comment.

(g) Common, (1953, *Aust. J. Zool.* **1** : 320) in his work entitled " The Australian species of *Heliothis* (Lepidoptera: Noctuidae) and their pest status ", attributing the genus *Heliothis* to Ochsenheimer, 1816, wrote:

> " The name *Heliothis* was first used by Hübner in his *Tentamen Lepidopterorum* (1806) and again in his *Erste Zuträge zur Sammlung exotischer Schmetterlinge* (1808), but it appears to have been first used validly in 1816 by Ochsenheimer for a group of moths including *Noctua dipsacea* Linn. It is open to doubt whether Hübner's *nomen nudum*, *Heliothis jucunda* 1808, should be regarded as subsequently validated by an illustration published in

his *Zuträge zur Sammlung exotischer Schmettlinge*, which bore only a number and to which he applied the name *Melipotis jucunda* in the text of the *Zuträge* in 1818 (see Hemming 1937)."

(h) Forbes, (1954, *Lepidoptera of New York and neighboring states* 3, Noctuidae) has followed a conservationist policy and not accepted the *Erste Zuträge.*
(i) Berio, (1955, *Rev. Zool. Bot. Afr.* **51** : 212) accepted the *Erste Zuträge* by stating, " Poiché *Agrotis* O. (1816) non può essere usato per omonimia con *Agrotis* Hb. (1809–13), che ha per monogenotipo *A. grata* Hb. . . . ".
(j) Franclemont (1957, *Bull. Brooklyn Ent. Soc.* **52** : 5) in his work entitled " The genus *Euclidia*, with the description of a new species (Lepidoptera, Noctuidae, Catocalinae) " wrote:

> " I am using the traditional name *Euclidia*, which was first proposed by Hübner in the *Tentamen*, 1806, and subsequently used by Ochsenheimer in 1816 in the same sense as Hübner, and credited by Ochsenheimer to Hübner. Tams (*Entomologist*, vol. **72**, p. 139, 1939) has suggested that *Euclidia* Hübner, 1808, replace *Schinia* Hübner, 1818, and that *Ectypa* Billberg, 1820, be used for the concept I am calling *Euclidia.*
>
> " The use of *Euclidia* is complicated by the provisions of Opinion 97 of the International Commission on Zoological Nomenclature and by the action of the Commission at Paris in 1948 (*Bulletin of Zoological Nomenclature*, vol. **4**, 337–338, 1950); Opinion 97 declared the *Tentamen* not published in accordance with the provisions of Article 25 of the Règles, and the Commission's action at Paris reaffirmed this, but deleted the obviously erroneous statements in the Opinion. The next use of the name after the *Tentamen* was by Hübner in the *Erste Zuträge zur Sammlung exotischer Schmetterlinge*, dated 1808; this work and the *Tentamen* are undeniably linked, the ' generic names ' of the *Erste Zuträge* are the ' stirps names ' of the *Tentamen.* I placed an application (Z.N.(S.) 353) before the Commission in 1950 asking for the suppression of the *Erste Zuträge* for nomenclatorial purposes. If we grant that this work was published and distributed, for which there seems to be no contemporary evidence, only the first four generic names are available: the remaining names are *nomina nuda*, based upon the then undescribed and unfigured species. However, it must be added that many of the specific names used in the *Erste Zuträge* were not original with Hübner, but had been proposed with an indication in the Megerle Sales Catalogue of September 1804. Sales catalogues are not considered acceptable publications for the availability of names, thus the status of the names used in the *Erste Zuträge* is not altered by their proposal in a previously published sales catalogue. I cannot see any way of gaining availability for the stillborn *nomina nuda* of 1808, except by descriptions or figures actually coupled with the names. It is absolutely necessary to republish the names in connection with at least indications. The plates of the *Zuträge*, issued between [1808]–[1809] and [1809]–[1813] and used by Hemming to confer supposed availability upon the names, bear only numbers and no names, and thus any claim that they do confer availability is *ultra vires.*"

(k) Boursin (1957, *Bull. mens. Soc. Linn. Lyon* **26** : 211) in a note, pointed out that if *Agrotis* Hübner, 1808, is accepted from the *Erste Zuträge*, then *Scotia* Hübner, 1821, must be used to replace *Agrotis* Ochsenheimer, 1816, which is then preoccupied.

(l) Berio (1957, *Mem. Soc. ent. Ital.* **36** : 5–19) in his work entitled " Ulteriori modifiche ecambiamenti nella nomenclatura dei generi di Noctuidae del globo " has produced a catalogue of 130 generic names of the Noctuidae together with their type-species designations. The *Erste Zuträge* has been accepted wherever applicable.

(m) Common (1958, *Aust. J. Zool.* **6** : 70) in his work entitled " The Australian cutworms of the genus *Agrotis* (Lepidoptera: Noctuidae) ", attributed the genus *Agrotis* to Ochsenheimer, 1816, and wrote:

> " Hübner (1806) first used the name *Agrotis* in the combination *Agrotis segetum* in the *Tentamen* which the International Commission on Zoological Nomenclature has added to the Official Index of Rejected and Invalid Works in Zoological Nomenclature (Opinion 278). The combination *Agrotis grata* appeared as a *nomen nudum* in Hübner's (1808) *Erste Zuträge zur Sammlung exotischer Schmetterlinge.* In the text of the *Zuträge zur Sammlung exotischer Schmettlinge*, Hübner (1818) substituted the name *Elaphria grata*, associating it by number with a plate published earlier than the text. In Hemming's (1937) opinion the plate of the *Zuträge* validated the name *Agrotis grata* listed in the *Erste Zuträge*, though it was apparently Hübner's intention in the text of the *Zuträge* not to use the name *Agrotis* for this species. The name *Agrotis* was next used by Ochsenheimer (1816) for a group of species including *Noctua segetum.* As the name has been used consistently in this sense for more than a century, it would seem logical to add *Agrotis* Ochsenheimer, 1816, with type *Noctua segetum* to the Official List of Generic Names as suggested by Tams (1939)."

(n) Hardwick, (1958, *Canad. Entomologist* **90**, Suppl. 6 : 7) in his work on the " Taxonomy, life history and habits of the elliptoid-eyed species of *Schinia* (Lepidoptera: Noctuidae), with notes on the Heliothidinae " wrote as follows:

> " Apart from its inclusion in Hübner's invalidated *Tentamen Lepidopterorum* of 1806, the first usage of *Heliothis* was in Hübner's *Erste Zuträge zur Sammlung exotischer Schmetterlinge* of 1808. Before Hemming's monumental publication on Hübner in 1937, the *Erste Zuträge* had been largely overlooked or ignored by workers on Lepidoptera. According to Hemming's interpretation, however, the names in this list became valid when the accompanying plates were released. In the *Erste Zuträge*, Hübner included only *jucunda* in the genus *Heliothis* and these two names would become valid when the fifteenth plate was released between 1809 and 1813. *Jucunda* was subsequently listed in the *Zuträge zur Sammlung exotischer Schmettlinge*, published in 1818, as the only species included in the genus *Melipotis.* If the *Erste Zuträge* names are deemed valid, then *Heliothis* must become a catocaline genus and *Melipotis* a primary synonym of it. Such a procedure could lead only to nomenclatorial confusion because *Heliothis* has not subsequently been associated with *jucunda* and has become the type genus of another subfamily . . . .

> " If the *Erste Zuträge* names are not accepted the first valid usage of *Heliothis* was evidently that of Ochsenheimer (1816) and the first type-species selection for the genus that of *dipsacea* (L.), by Samouelle (1819).
>
> " A similar tangle would result from accepting the name *Euclidia* Hübner as of the *Erste Zuträge*. The species illustrated in the *Zuträge* as *Schinia gracilenta* in 1818 was previously listed in the *Erste Zuträge* as *Euclidia gracilis*. Five species, *gracilis*, *graphica*, *trifascia*, *bifascia* and *cuspida* were included in *Euclidia* in the *Erste Zuträge*. Only *gracilis*, however, was described in that publication and as pointed out by Tams (1939), would become type-species of *Euclidia*. *Schinia*, in this event, would become a synonym of *Euclidia*, at present also considered a catocaline genus.
>
> " The *Erste Zuträge* names are ignored in this paper because their acceptance would result in concepts entirely foreign to current usage."

(o) Inoue (1958, *Check List Lep. Japan*: 445, 456) attributed both *Heliothis* and *Agrotis* to Ochsenheimer, 1816.

(p) Zimmerman (1958, *Ins. Hawaii* **7** : 204, 215) attributed both *Heliothis* and *Agrotis* to Ochsenheimer, 1816.

(q) Todd (1959, *United States Dept. Agric., Tech. Bull.* **1201** : 3) in his work entitled " The fruit-piercing moths of the genus *Gonodonta* Hübner (Lepidoptera, Noctuidae) ", under the heading Nomenclatorial Remarks wrote:

> " The first problem relates to the use of *Gonodonta* Hübner (*Zuträge zur Sammlung exotischer Schmettlinge*, Erstes Hundert, Augsburg, 1818, p. 11) rather than *Ptilodon* Hübner (*Erste Zuträge zur Sammlung exotischer Schmetterlinge*, Augsburg, 1808, p. 4). Many lepidopterists have not accepted the latter paper, as there is considerable doubt that it was actually published. Furthermore, J. C. Franclemont of Cornell University has applied (Z.N. 353) to the International Commission on Zoological Nomenclature for the suppression, for nomenclatorial purposes, of Hübner's *Erste Zuträge*. Even if the Commission were to rule against suppression, there still remains the question of whether Hemming (1937, p. 439) is correct in his opinion that the subsequent publication of the plates of the Erstes Hundert of the *Zuträge zur Sammlung exotischer Schmettlinge* in 1809–13 validated the names that were *nomina nuda* in Hübner's *Erste Zuträge*. Therefore, it seems desirable to use the familiar name *Gonodonta* Hübner for the taxon studied."

(r) Boursin (1961, *Beitr. naturk. Forsch. SW-Deutschl.* **19** : 373–398) in his catalogue of the Noctuidae from the Afghanistan Expedition 1856, accepted the *Erste Zuträge*, without comment.

(s) Dufay (1961, Faune terrestre et d'eau douce des Pyrénées-Orientales **6**, Lép. 1 : 1–153) in his catalogue has followed the nomenclature adopted by Monsieur Ch. Boursin for the Noctuidae, and accepted the *Erste Zuträge*.

(t) Fletcher (1961, *Ruwenzori Exped.* 1952, **1**, Noctuidae) has accepted *Heliothis* based on Ochsenheimer's usage, but has used *Scotia* Hübner in place of *Agrotis* Ochsenheimer, both without comment.

(u) Van Schepdael (1961, *Linnaeana Belgica* **1** : 85–92) in his list of the Noctuidae of Belgium has followed the nomenclature adopted by Monsieur Ch. Boursin and accepted the *Erste Zuträge*.

(v) Viette (1962, *Ann. Soc. ent. France* **131** : 94) in his work entitled " Noctuelles trifides de Madagascar ", wrote:

> " En attribuant ici a Ochsenheimer (1816) le genre *Agrotis*, j'ai respecte l'usage et suivi Tams (1939 : 70) . . . ."

(w) Berio (1963, *Atti Soc. ital. Sci. nat.* **102** : 223–228) in a paper entitled " La seconda copia del famoso *Erste Zuträge zur Sammlung exotischer Schmetterlinge* di Hübner (1808) è conservata al Museo Civico di Storia Naturale di Milano ", reported the existence of this copy which in his opinion confirms that the *Erste Zuträge* was actually published.

18. To sum up, all the evidence agrees with the hypothesis that the *Erste Zuträge* was a printer's proof and is therefore not available for nomenclatorial purposes. All authors who have carried out revisionary work involving generic names used in the *Erste Zuträge* have deliberately refrained from adopting that usage. Some authors in catalogues, and lists of the Palaearctic and Ethiopian fauna have used the next available synonym in place of generic names occurring in the *Erste Zuträge*, for example the well known genera *Agrotis* and *Heliothis* are being replaced by *Scotia* and *Chloridea* respectively, thus leaving the former names to be used in the sense of the *Erste Zuträge*, mainly as New World genera. This change of well established names to, in many cases, an entirely different concept is not only unnecessary but nomenclatorially incorrect, and although advocated has so far not been adopted. Unless a decision on this application is now obtained, the schism which is developing among lepidopterists will increase. I therefore request that the International Commission on Zoological Nomenclature take the action indicated in paragraph 1(a) and at the same time place on the appropriate List or Index the generic names as indicated in paragraphs 15 (a)–(ll).

31 MAR 1964
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The Official Organ of

THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

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ELECTION OF OFFICERS AND COUNCIL

In accordance with the new Bylaws of the Commission and as directed by the Washington Congress, 1963, a secret ballot has been held by the Secretariat to elect, from amongst the Commissioners, a new Council. Voting Papers were sent to all Commissioners. The preliminary ballot, with all Commissioners as candidates, was for four members of the Council. The order of voting for the first four places was (1) Miller (U.S.A.), (2) Mayr (at large), (3) Holthuis (Netherlands) and (4) Sabrosky (U.S.A.). These Commissioners were then asked if they were willing to serve, either as officers or councillors. Commissioner Sabrosky modestly retired on the grounds that he had only just been elected Commissioner, so that Commissioner Stoll (U.S.A.) moved from fifth to fourth place on the ballot. Normally the fifth member of the Council would be the retiring President, but as Professor J. Chester Bradley has resigned from the Commission at the age of 75 he is no longer available and it was necessary to elect a fifth councillor. Consequently Commissioner Forest, now in fifth place, was selected as the replacement for the ex-President on the new Council.

From amongst the five candidates for office, only Commissioner Miller was agreeable to serve as President, and was therefore considered as elected to that office. A second secret ballot was held for the election of a Vice-President. The result was the election of Commissioner Holthuis.

Certificate

I certify that the votes cast in the above mentioned ballots resulted in the election of the following Officers and Council:

President: Dr. Alden H. Miller.
Vice-President: Dr. L. B. Holhuis
Councillors: Dr. J. Forest
Prof. Ernst Mayr
Dr. N. R. Stoll

(signed) W. E. CHINA
Acting Secretary to the
International Commission on Zoological Nomenclature

Death of Canon L. W. Grensted

The Acting Secretary regrets to announce the death, on March 18th, 1964, of Canon Prof. L. W. Grensted, for many years Classical Adviser to the Commission.

NOTICES

(a) *Date of Commencement of Voting*.—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers*.—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin*:—

(1) Suppression of six specific names of mites (Acarina). Z.N.(S.) 1564.
(2) Suppression of the generic name *Eolidina* Quatrefages, 1843 (Gastropoda) Z.N.(S.) 1098.
(3) Validation of the generic name *Embletonia* Alder & Hancock, 1851 (Gastropoda) Z.N.(S.) 1100.
(4) Designation of type-species for *Portlandia* Mörch, and *Yoldia* Möller, 1842 (Pelecypoda). Z.N.(S.) 1522.
(5) Suppression of the generic name *Cardinalis* Jarocki, 1821 (Aves). Z.N.(S.) 1608
(6) Suppression of the generic name *Smerdis* Leach, 1817; Designation of type-species for *Pseudosquilla* Dana, 1852, and *Gonodactylus* Berthold, 1827 (Crustacea, Stomatopoda). Z.N.(S.) 1609.
(7) Validation of the specific name *Griselda radicana* Heinrich, 1923 (Insecta, Lepidoptera). Z.N.(S.) 1612.
(8) Designation of a type-species for *Baetis* [Leach, 1815] (Insecta, Ephemeroptera). Z.N.(S.) 1620.
(9) Designation of a type-species for *Megalopta* Smith, 1853 (Insecta, Hymenoptera). Z.N.(S.) 1624.
(10) Suppression of *Amaurobius* C. L. Koch, 1836, and *Cavator* Blackwall, 1840 (Araneae). Z.N.(S.) 1625.
(11) Validation of the family-group name PLATYPLEURINAE Schmidt, 1918 (Insecta, Hemiptera). Z.N.(S.) 1626.

COMMENT ON PROPOSED USE OF THE PLENARY POWERS IN CONNECTION WITH CERTAIN NAMES OF TANAGERS

Z.N.(S.) 1182

(see volume 20, pages 296–302)

By Kenneth C. Parkes (*Carnegie Museum, Pittsburgh, Pa. U.S.A.*)

I am in full accord with the " strong opposition . . . voiced by American ornithologists against Proposal A " of Salomonsen, Junge and Stresemann (*Bull. Zool. Nomencl.* 20 : 301), which would involve changes in currently used names at the specific, generic, and family levels by invoking the plenary powers to " end confusion ". I propose to show that these changes are neither necessary nor desirable; that certain of the arguments used by the proposers of the changes are irrelevant or erroneous; and that confusion would be augmented rather than ended should either of the proposals be adopted.

Professor Mayr has given a scholarly resume of the history of usage of the tanager names in question. He has given much emphasis to the status of the names prior to 1926, the year that Wetmore and Miller proposed the family name Thraupidae, based on Richmond's finding in 1908 that *Thraupis* is the correct name for the true tanagers. A key sentence in Professor Mayr's summary is: " This suggestion [i.e., that of Wetmore and Miller] has been adopted in most subsequently published [i.e., post-1926] major works on ornithology."

It cannot be emphasized too often, when these matters of restoring older names through the plenary powers are introduced, that the literature of ornithology is expanding at a virtually exponential rate. The earliest name being considered in this case is *Tanagra* Linnaeus, 1764. I do not doubt for a moment that the tanagers in question have been mentioned in print more often in the 37 years from 1926 to 1963 than in the entire 162 years from 1764 to 1926. The emphasis in Professor Mayr's Alternative 1 (2) on " the historical usage of the names *Tanagra* (as used for 142 years) and *Euphonia* (as used for 102 years) " is quite misleading. What is important to the ornithologist working with the literature is not numbers of years but numbers of references. In addition, the working ornithologist finds himself consulting the relatively recent literature far more frequently than older publications. Two illustrations, using the " turning-point " date 1926, will demonstrate this fact. The newest text-book of ornithology (Welty, 1963. The life of birds) has a bibliography of some 800 titles, considered by the author as being the most important of approximately 8000 consulted. Of these, 54, or less than 7 per cent, are older than 1926. As for current research, the major papers in the 1963 volume of *The Auk* list a total of 471 references, of which 46, or less than 10 per cent, are older than 1926.

Thus I agree with the position expressed in Proposal B by Mayr, Miller, Storer, and Stresemann, that the names *Thraupis* and Thraupidae have become all but universal, and that confusion would be fostered rather than avoided by reverting to earlier usages. The authors of Proposal B suggest that, because the name *Tanagra* has been used for two quite different groups of birds, the tanagers and the euphonias, it has " lost much of its usefulness ". Professor Mayr states: " . . . the danger of confusion is so evident that even Hellmayr *often* [italics mine] uses the designation *Tanagra* (*Euphonia*) to indicate which genus he is referring to ". Lest this statement be accepted uncritically, it should be pointed out to those without ready access to ornithological literature that such a designation appears exactly *twice* in Hellmayr's tanager volume (1936, *Cat. Bds. Americas*, pt. IX), in both instances being exact transcriptions of names (complete with parentheses) as used by the original describers.

Granted that the change of application of *Tanagra* from the tanagers to the euphonias has caused confusion in the past during a period of transition, I do not see that anything is gained by making still another change, even if it is a reversion to an earlier usage. Substitution of *Euphonia* for *Tanagra* as of 1964 will not expunge from the literature the great mass of references under the latter name. We need now only to remember that, in general, references to the euphonias prior to 1908 appear under

Euphonia, and, increasingly after 1908, under *Tanagra*. Under Proposal B it would become necessary to add to this an additional date; after 1964, *Tanagra* may no longer be used, and *Euphonia* will reappear in the literature—except that there will inevitably be another period of transition while this dictum gradually reaches workers who may be studying tanagers but may not have access to the *Bulletin of Zoological Nomenclature*. Some may continue for years to use *Tanagra* for the euphonias. Such workers would be in error according to the International Rules, *just as* those " Continental European authors " mentioned by Mayr were in error in continuing to use the family name Tanagridae after the perfectly correct action of Wetmore and Miller in 1926—although Mayr cites this erroneous usage as an argument for conserving the older name!

In view of the fact that the *modern* literature (which, as mentioned above, is the principal tool of most workers) employs the name *Tanagra* for the euphonias, I do not see that anything is gained by reversion to the generic name *Euphonia* except what Professor Mayr calls " congruence of scientific name . . . with vernacular [name] ". However, the International Rules make no provision for the conservation of mnemonic aids as a principle of zoological nomenclature. Similarly, it is perhaps annoying to have both *Tanagra* and *Tangara* as currently used generic names within a family, but this means chiefly a closer attention paid to proof-reading.

Reference is also made in Proposal A (and in the request to the International Commission following Proposal B) to the substitution as first reviser by Gyldenstolpe in 1945 of *Loxia virens* Linnaeus, 1766, for *Tanagra episcopus* Linnaeus of identical date, as the name for the Bishop Tanager. The statement is made that " *Loxia virens* . . . has never been used in this sense [i.e., for the Bishop Tanager] ". This statement was already incorrect at the time it was originally written in 1956, and the name *virens* has received increasing acceptance in subsequent years. Among the standard references and major faunal papers in which the name *Thraupis virens* is used for this species are: Phelps and Phelps, 1950 (*Bol. Soc. Venez. Cien. Nat.*, **12** : 326) and 1963 (*idem.*, **24** : 372–373) on Venezuela; de Schauensee, 1951 (*Caldasia*, **5** : 1044–1046) and Miller, 1963 (*Univ. Calif. Publ. Zool.*, **66** : 53) on Columbia; Junge and Mees, 1958 (*Zool. Verhandl.*, no. **37** : 139–140) and Herklots, 1961 (Birds Trinidad and Tobago : 256–257) on Trinidad and Tobago; Haverschmidt, 1955 (*Publ. Found. Sci. Res. Surinam and Neth. Antilles*, no. **13** : 132) on Surinam; Traylor, 1958 (*Fieldiana; Zoology*, **35** : 134) on Peru; Slud, 1960 (*Bull. Am. Mus. Nat. Hist.*, **121** : 112) on Costa Rica; Blake, 1953 (Birds of Mexico : 529) and Miller *et. al.*, 1957 (*Pac. Coast. Avi-fauna*, no. **33** : 300) on Mexico.

Although Gyldenstolpe did not make a formal substitution of *virens* for *episcopus* until 1945, Hellmayr warned as long ago as 1936 (*Cat. Birds Americas*, pt. IX; 205) that *virens* was probably the correct name for the Bishop Tanager. Since 1945, many other species of birds have undergone name changes to comply with the International Rules. In the years 1946–1956, for example, over twenty changes of specific or subspecific names for purely nomenclatorial (i.e., not taxonomic) reasons were accepted by the American Ornithologists' Union Committee on Classification and Nomenclature, for the North American avifauna alone. Some of the species involved have a far larger literature than does the Bishop Tanager. In view of the wide current acceptance of the name *virens* for this species, it seems almost capricious to single out the name *episcopus* for restoration through the plenary powers of the International Commission.

To summarize, I believe that the necessity for none of the proposed changes, through use of the plenary powers, has been demonstrated, and that certain of these changes would compound rather than alleviate confusion among those working with the literature of the tanagers.

COMMENT ON THE PROPOSAL TO PLACE *ACARUS TELARIUS* LINNAEUS, 1758, *TROMBIDIUM TILIARIUM* JOH. HERMANN, 1804, AND *TETRANYCHUS URTICAE* C. L. KOCH, 1836 (ACARINA) ON THE OFFICIAL LIST. Z.N.(S.) 1564

(see volume 20, pages 363–366)

By G. L. van Eyndhoven (*Zoölogisch Museum, Amsterdam, The Netherlands*)

With reference to the above mentioned request by my colleagues H. Bruce Boudreaux & Gudo Dosse I am sorry to say that I can only partially agree with their proposal. My objections are listed underneath:

1. In my paper " The lectotype of *Acarus telarius* Linnaeus, 1758 (Acar.); Notulae ad Tetranychidas 10 ", in *Entomologische Berichten* **23** : 121–122, 1 July 1963, I selected as the lectotype of *Acarus telarius* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 616) the specimen (or if there were more than one, the largest of the specimens) described by Linnaeus (1746, *Fauna Svecica* (ed. 1) : 350) under no. 1212 as " Acarus viridi-albicans foliorum Tiliae ", which is the spider mite of *Tilia*, which in Sweden lives on *Tilia* leaves and produces a big webbing on its trees. As Linnaeus (1758) in his original description of *Acarus telarius* referred to his 1746 description of his Acarus 1212, this selection is entirely valid.

In the same paper I indicated a neotype which is in accordance with the six requirements prescribed in the International Code of Zoological Nomenclature.

As this lectotype has been selected, in my opinion the species *Acarus telarius* Linnaeus, 1758, at this moment is entirely restricted to the mite from *Tilia*, now known as *Eotetranychus telarius* (Linnaeus, 1758). This selection was the least complicated one out of the confused 1758 description.

2. The Linden Mite or Limetree Mite from *Tilia* was known to Linnaeus already as early as 1746 (*Fauna Svecica* no. 1212) and he has emphatically mentioned it in his later works containing the confused description, giving it a preference by using the number 1212 before the number 1196. In the confused 1758 description it is the only one emphatically mentioned by a named plant host (*Tilia*). All the other indications of this description: "in Europae plantis", " caldario inclusis ", are general terms which do not say anything definite.

3. I cannot agree that the word " hyalino-fulvus " in Linnaeus' 1758 description simply can be translated as " reddish ". According to lexicons the word " fulvus " normally means shades where the yellow dominates, such as dark yellow, brown yellow and reddish yellow, in general the colour of lions, sand, gold, etc., and only under circumstances may signify a bright red colour. The fact that Linnaeus explicitly indicates " in Tiliae foliis aversis autumno frequens " proves that he meant a more or less orange colour, for the *Tilia* mite is never red. It has in autumn a more or less orange tint which is about the same tint belonging to the diapause stage of the Common Spinning Mite (" in Europae plantis ", " caldario inclusis "). To include " bright red " in his description, he would have had to add a second adjective. Spider mites of a bright red colour, as for instance *Tetranychus cinnabarinus* (Boisduval, 1866) sensu Boudreaux, 1956, are in Northern European countries not at all common on plants in the field (perhaps even completely lacking) and also not very common in greenhouses. We may admit that Linnaeus in 1758 meant the spider mites common in the countries he had visited, *i.e.* the Northern European countries. Experience teaches that in those countries the Common Spinning Mite (*Tetranychus urticae* C. L. Koch, 1836, sensu Boudreaux & Dosse) is an extremely common species on plants in the open air. In greenhouses it is normally the same species and the Carmine Mite (*Tetranychus cinnabarinus* (Boisduval, 1866) sensu Boudreaux 1956) is a rare species, only now and then occurring there.

Note: The correct publication date of *Tetranychus cinnabarinus* Boisduval is 1866. In 1867 the same work was published with a new title page only. See also: *Bulletin entomologique* 2^{me} partie, Bull. ent. in *Ann. Soc. ent. France* **6** : LXXIII–LXXV, 1866 (1867).

4. It is true that C. L. Koch in 1838 (*Deu. Crust. Myr. Archn.*, Fasc. 17 : 12) described a spider mite which he called *Tetranychus telarius*. But Koch had not the intention to revise the genus or its species and so he is not a true reviser in the sense of the International Code.

Koch indicated in his Latin description the colour as " fusco-testaceus " which might be translated as " dark red " (" reddish " in the proposal of Boudreaux & Dosse). But in his own German translation of the Latin description Koch indicated the colour as "bräunlich gelb, der Vorderleib und die Beine etwas heller". His original coloured plate also shows a pale brownish yellow tint with no trace of red. It is impossible, therefore, to read this as the bright red colour of Boudreaux' Carmine Mite (*Tetranychus cinnabarinus* (Boisduval, 1866) sensu Boudreaux, 1956).

Furthermore Koch indicates: " antice obtusiusculus, postice conicus " and " sehr klein ". Boudreaux' Carmine Mite is neither very small nor has it the conical posterior ending as mentioned and depicted by Koch. One might suppose that Koch has not had anything else but a male of the Common Spinning Mite, which male is much smaller than the female and has a conical ending. Another possibility, though less probable, is that Koch has described a nymph.

Also Koch's " dunkelbraune Flecken, sehr selten in einen grossen Seitenfleck zusammengeflossen, dabei doch im Innern etwas gelbliche Mischung " do not at all refer to the bright red colour of the Carmine Mite.

In his description Koch refers to A. Dugès (1834, Recherches sur l'ordre des Acariens etc., Premier Mémoire, *Annales Sci. nat.*, Partie Zool., sér. 2, vol. 1). On pages 25–27 Dugès gives a description just as confused as Linnaeus, 1758, and he does not attribute any value to the colour which may change from greenish to bright red, but he certainly was not specially describing a red species.

Koch also refers to Hermann (1804, *Mémoire aptérologique*, p. 40, 24, plate 2, fig. 15). This is Hermann's *Trombidium telarium*. Hermann does not mention a red colour at all and he gives a coloured picture which shows a yellowish tint.

5. Moreover Koch writes that he found his mite specially on the " rothe Johannisbeere ", *Ribes rubrum*. This is the only plant mentioned by name. His other indications about wild plants and plants in rooms and greenhouses are all entirely vague indications. I have seen many spider mites on *Ribes rubrum*. They are the Common Spinning Mite (*Tetranychus urticae* C. L. Koch, 1836) as mentioned in the request of Boudreaux & Dosse. They often have not the greenish tint of mites from weeds, but show a yellowish or brownish tint which has nothing to do with red.

6. All these facts clearly show that C. L. Koch, when describing his *Tetranychus telarius* in 1838, did not at all describe a red or reddish species, nor had he the intention to do so.

7. It is true that Rydbeck in his 1758 paper (*Pandora Insectorum*) was not a reviser in the strict sense of the International Code. I have indicated this in my 1962 paper (*Acarus telarius* versus *Tetranychus urticae* (Acar.); Notulae ad Tetranychidas 9 in *Entom. Berichten* **22** : 182). It is a fact, however, that Rydbeck (read : Linnaeus) has made a decision at that moment, because for the similar mite from Malva (also belonging to the confused description of Linnaeus, 1758) he does not use the word " telarius ", but only the indication " Fn. 1196 ". This proves that Rydbeck (read : Linnaeus) in that paper did not use the word *telarius* as a general indication for all spider mites.

It cannot be denied that Linnaeus, in later reprints of his works, repeated his confused description. But in later reprints of Rydbeck's dissertation the names of 1758 were repeated. So the question of a strict name has evidently been of secondary importance to Linnaeus. The reprints were not made critically; so Linnaeus, for instance, in later works uses for indicating the colour " hyalino-fulvus " as well as " rubicundo hyalinus ".

8. Apart from all this, establishing *Tetranychus telarius* Linnaeus, 1758, as a substitute for *Tetranychus cinnabarinus* (Boisduval, 1866) sensu Boudreaux, 1956, would cause a lot of confusion. In fact the name *Tetranychus telarius* has already two meanings which have continuously caused much confusion, especially in applied

literature: 1. the mite from *Tilia;* 2. the Common Spinning Mite. The proposal of Boudreaux & Dosse would create a third meaning for this mite, with as a result three different meanings in literature. This more especially would cause confusion to applied acarologists who, as a rule, are not working on systematics. Moreover the name *Tetranychus cinnabarinus* (Boisduval, 1866) as interpreted by Boudreaux, 1956, is a well introduced name now in literature, also in applied works, and altering it would create a superfluous synonym which only would change literature still more. It would force all the acarologists, all over the world, to change the names they used up to now.

9. By using 1. the name *Eotetranychus telarius* (Linnaeus, 1758) for the Linden Mite from *Tilia*; 2. *Tetranychus urticae* C. L. Koch, 1836 for the Common Spinning Mite and 3. *Tetranychus cinnabarinus* (Boisduval, 1866) for the Carmine Mite, the confusion in literature is reduced to two meanings and only part of the acarologists (especially those outside Europe) will have to apply another name in future than that they were used to.

10. If we accept *Eotetranychus telarius* for the mite from *Tilia*, a discussion about the name *Eotetranychus tiliarium* (Joh. Hermann, 1804) (see paragraph 11 of the proposal of Boudreaux & Dosse) is not necessary. If my idea is not accepted, it would be wise to accept the name *tiliarium* for the future designation of the *Tilia* mite, according to the proposal of Boudreaux & Dosse.

11. The proposal of Boudreaux & Dosse to accept the name *Tetranychus urticae* C. L. Koch, 1836 for the Common Spinning Mite needs no discussion. This proposal, to my idea, is attractive and recommendable, and should certainly be accepted.

12. Summarizing, my ideas are:

(a) *Acarus telarius* Linnaeus, 1758 belongs to *Tilia* by my selection of the lectotype, 1 July 1963. There is no reason to cancel this selection.

(b) Accepting *Tetranychus urticae* C. L. Koch, 1836 as the definite name for the Common Spinning Mite, as proposed by Boudreaux & Dosse, is a very good decision and should certainly be accepted.

(c) *Tetranychus telarius* as interpreted by C. L. Koch, 1838, is a very small mite and is not red, so that it can not be taken as a synonym of *Tetranychus cinnabarinus* (Boisduval, 1866) sensu Boudreaux, 1956. Accepting it would entirely be against the ideas of C. L. Koch.

(d) *Tetranychus cinnabarinus* (Boisduval, 1866) has been redescribed by Boudreaux, 1956, and is a good species. Its name is well introduced in acarology now and should be maintained.

(e) If, notwithstanding, *Tetranychus telarius* sensu C. L. Koch, 1838, is accepted for *Tetranychus cinnabarinus* (Boisduval, 1866) as proposed by Boudreaux & Dosse, a third meaning would be created for the name " telarius ". This would only cause further confusion in literature and that has to be avoided.

(f) By accepting *Eotetranychus telarius* (Linnaeus, 1758) for the Linden Mite from *Tilia*; 2. *Tetranychus urticae* C. L. Koch, 1836 for the Common Spinning Mite, and 3. *Tetranychus cinnabarinus* (Boisduval, 1866) for the Carmine Mite, we have the most simple solution, forcing only part of the acarologists to change their traditional names.

13. My counter-proposal to the International Commission is therefore that the following names be placed on the Official List of Specific Names in Zoology:

(a) *telarius* Linnaeus, 1758, as published in the combination *Acarus telarius* (*Syst. Nat.* (ed. 10) **1** : 616), restricted to *Tilia* by the lectotype selection of G. L. van Eyndhoven (*Entom. Berichten* **23** : 121–122, 1 July 1963). I designate as neotype a male mounted on a glass microscopical slide on deposit in the Zöologisch Museum, Amsterdam, bearing the following data: *Eotetranychus telarius* (L., 1758), neotype *Acarus telarius* L., 1758, *Tilia* sp., Lund, Sverige, 29. VIII. 1957, leg. Dr. G. Kruseman, loc. 957481 ".

(b) *urticae* C. L. Koch, 1836, as published in the combination *Tetranychus urticae*, according to the proposal and neotype of Boudreaux & Dosse (*Bull. zool. Nomencl.* **20** : 365–366, 21 Oct. 1963.

(c) *cinnabarinus* Boisduval, 1866, as published in the combination *Acarus cinnabarinus* (*Essai sur l'Entomologie horticole* etc., page 88, 1866) according to the redescription of Boudreaux (*Ann. ent. Soc. America* **49** : 46, 1956). As neotype the specimen indicated by Boudreaux & Dosse (*Bull. zool. Nomencl.* **20** : 365, 21 Oct. 1963) under the name *Acarus telarius* (B.M.(N.H.)) 1963.1.9.1. might be available.

14. I furthermore propose to the International Commission to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:

(a) *alceae* De la Chenaye des Bois, 1759, as published in the combination *Acarus alceae* (*Dictionn. raisonné et Universal des Animaux* **1** : 647, 1759). De la Chenaye des Bois copied this name from Linnaeus' *Fauna Svecica*, 1746, (ed. 1) : 347, which is not entirely binominal. If this name is considered valid because De la Chenaye des Bois gives a description, it is recommended to be rejected, as it might be an older synonym of *Tetranychus urtica* C. L. Koch, 1836.

(b) *sambuci* Schrank, 1781, as published in the combination *Acarus sambuci* (*Enumeratio Insectorum Austriae*, p. 524, 1781). This species is often considered as an older synonym of *Tetranychus urticae* C. L. Koch, 1836. The solution of this problem is not yet definite, but the two species are closely related. If they prove to be synonymic, it is preferable to reject the older name *sambuci* as at present. If they are not synonymic, the mite of *Sambucus* can be renamed later.

(c) *textor* Fourcroy, 1785, as published in the combination *Acarus textor* (*Entomologia parisiensis* **2** : 530, 1785). Notwithstanding the short description this animal can be considered as a senior synonym of *Tetranychus tiliarium* (Joh. Hermann, 1804) (Boudreaux & Dosse, 1963, in *Bull. zool. Nomencl.* **20** : 365, 11b), but it would be a junior synonym of *Acarus telarius* Linnaeus, 1758 sensu Van Eyndhoven (in this paper). The diagnosis of *Acarus textor* has been copied from Geoffroy (1762, *Hist. abr. Ins.* **2** : 626–627), who gave no binominal name.

(d) *tiliae* Forskål, 1787, as published in the combination *Acarus tiliae* (Hospita Insectorum Flora, 1787, *in* Linnaeus, *Amoen. Acad.* **3** : 296). Although this name is a junior synonym of *Acarus telarius* Linnaeus, 1758 sensu Van Eyndhoven (in this paper), it is to be considered as a senior synonym of *Trombidium tiliarium* (Joh. Hermann, 1804) (Boudreaux & Dosse in *Bull. zool. Nomencl.* **20** : 365, 11b).

(e) *alceae* Forskål, 1787, as published in the combination *Acarus alceae* (Hospita Insectorum Flora, 1787, *in* Linnaeus, *Amoen. Acad.* **3** : 299. This is important in case the name *alceae* of De la Chenaye des Bois, 1759 (see this paragraph under " a ") is not rejected.

(f) *tiliarium* Joh. Hermann, 1804, as published in the combination *Trombidium tiliarium* (*Mém. Apt.*, page 42–43). Although this name will become a junior synonym of *Acarus telarius* Linnaeus, 1758, sensu Van Eyndhoven (in this paper), it is better to place it on the Official Index, as the description of Joh. Hermann is not restricted to *Tilia*, but refers to other plants as well. It could thus be considered as a junior synonym of *Tetranychus urticae* C. L. Koch, 1836 (see paragraph 12b in this paper and Boudreaux & Dosse, 1963, in *Bull. zool. Nomencl.* **20** : 365–366).

COMMENT ON THE COUNTERPROPOSALS OF G. L. VAN EYNDHOVEN RELATIVE TO THE VALIDATION OF ACARINE NAMES. Z.N.(S.) 1564.

By H. B. Boudreaux (*Louisiana State University, Baton Rouge*)

It was because of the widely differing interpretations of intent attributed to Linnaeus that our proposal for stabilization of the names of important species of spinning mites was constructed (Boudreaux and Dosse, 1963, *Bull. zool. Nomencl.* **20** : 365–366, 21 Oct.). If I disagree with Prof. van Eyndhoven, it is largely in the interpretations of the works of the early writers.

I want to comment on some of our differences, with reference to Eyndhoven's comments above. It seems to me that his selection of a lectotype from a non-existent series of " syntypes " is invalid, because by its very selection a lectotype must be represented by a specimen or figure that can be studied. As far as is known there are no extant Linnaean types of mites.

In every early account of *Acarus telarius* Linnaeus, 1758, that I can find, various authors confuse the Linden mite with other spinning mites in the same fashion that Linnaeus did in *Systema Naturae* Ed. 10, and not until 1804 was the Linden mite distinguished from other mites *by name and in unmistakable fashion*, when Johann Hermann proposed its name in a note inserted in the book written by his son, J. F. Hermann, 1804, *Memoire Apterologique:* 41–42. The name *Trombidium tiliarium* then must be credited to the *father*, Joh. Hermann. The *son*, J. F. Hermann, used the name (op. cit: 42–43) for at least three species which were confused, but the son's description was written *before* the father's validation of the name *Trombidium tiliarium* for the Linden mite. The claim that Rydbeck, 1758, *Pandora Insectorum*, restricted the name *telarius* to the mite usually found on Linden is unacceptable, because Rydbeck specifically points out that his use of *Acarus telarius* is in the sense of the confused description of *Systema Naturae.*

Without the direct testimony of Linnaeus, the species included in his original *Acarus telarius* will never be certainly known. In spite of the testimony of Eyndhoven (above), the inclusion of a host plant citation cannot certainly identify the mites in question, and can only be suggestive. *Eotetranychus tiliarium* (Joh. Hermann, 1804) *sensu* Boudreaux and Dosse has been recorded on hosts other than *Tilia*. The other two mites are known to be highly polyphagous, and one occasionally infests *Tilia.* Therefore instead of trying to interpret the confused statements of the early writers, I feel that we must use names as they were first definitely established. Although Eyndhoven states that the carmine mite (*Tetranychus telarius* (L.) 1758, (sensu Boudreaux and Dosse) is perhaps completely lacking outdoors and not very common in greenhouses, there is evidence to the contrary in the European literature, and the firsthand experiences of Dosse confirm this. There is no question that Koch established the name *T. urticae* (1836, *Deutsche Crust. Myr. Arach.* fasc. **1** : 10) for the common two-spotted mite in an unmistakable fashion, for the first time. I believe from the evidence we have found that the carmine mite was also included in the Linnaean " A. telarius ". There are so many old references to " red spiders " in the sense of the Linnaean " A. telarius " that it is hardly thinkable that the carmine mite was not common at the time of Linnaeus, but it was confused with the orange or yellow fall colour of diapausing mites. Therefore the carmine mite was the last to remain after Joh. Hermann removed *Tr. tiliarium*, and Koch removed *T. urticae.*

The establishment of a lot of confusion, as claimed by Eyndhoven, will not be avoided by his proposals. Until rather recently the name *Tetranychus telarius* was used everywhere *except in Europe* for both the two-spotted mite and the carmine mite. Eyndhoven refers to acarologists especially outside of Europe as " only part of the acarologists ". I submit that his version would cause even more confusion, because " acarologists outside of Europe " out number those in Europe.

Concerning Eyndhoven's proposed rejected names (op. cit., Paragraph 14), *alceae* de la Chenaye des Bois, 1859 (*Dictionn. rais. Univ. Anim.* **1** : 647) cannot be an available name because the author is not binomial in other parts of his work. I agree that *sambuci* Schrank, 1781 (*Enum. Insect. Aust.* p. 524) should be suppressed, for the reasons given by Eyndhoven. The same is true for *textor* Fourcroy, 1785 (*Ent. Paris.* **2** : 530) because both the latter species cannot be identified. The names *tiliae* Forskål, 1787 and *alceae* Forskål, 1787 are improperly cited as 1787. Forskål's work was first published as a dissertation in 1752. This was reprinted several times, and such reprinting does not make a name available, so these names are not available as credited to Forskål.

Finally Eyndhoven (Par. 14, f.) mentions *tiliarium* Joh. Hermann, 1804 (*Mem. Apt*. 42–43). This name was used not by Joh. Hermann (père), but by J. F. Hermann (fils) in a confused sense *before* Joh. Hermann wrote his note restricting the name *tiliarium* to the linden mite. Thus it is the name *tiliarium* J. F. Hermann (fils) 1804, which must be suppressed in the sense of Eyndhoven, and not *tiliarium* Joh. Hermann (père), 1804. The name proposed by the father appears in the inserted note on pp. 41–42, and clearly must be credited to the father.

Please see the full discussion of our path of reasoning in: Boudreaux and Dosse, 1963. Concerning the names of some common spider mites in: *Recent Advances in Acarology* **1** : 350–364. Comstock Publishing Associates, Ithaca, New York, U.S.A.

OBJECTION TO, AND REVISION OF, THE PROPOSAL RELATING TO *KROHNIA* LANGERHANS, 1880 (CHAETOGNATHA). Z.N.(S.) 1586

(see volume 20, pages 381–382)

By Norman Tebble (*British Museum* (*Natural History*), *London*)

With reference to the application by R. Alvarado and I. Moreno (Museo Nacional de Ciencias Naturales, Madrid, Spain) for the validation of *Krohnia* Langerhans, 1880 Chaetognatha, under the plenary powers, I wish to register a firm objection.

The genus *Krohnia* Quatrefages, 1865, with type-species *Alciopa lepidota* Krohn, 1845, is a valid taxon. It is a recognised species of pelagic polychaete widely distributed in Tropical and Sub-Tropical waters of the Atlantic and Pacific Oceans. As *Krohnia lepidota* (Krohn, 1845) it has been reported as a good species by Støp-Bowitz (1948), Dales (1957), Hartman (1959), Tebble (1960, 1962).

Fauvel (1923) was in error in rejecting *Krohnia* for *Callizonella* Apstein, (1891), which is a synonym of it.

References

Fauvel, P. 1923. Polychètes errantes. *Faune de France*, Paris **5** : 1–488, 181 text-figs.

Støp-Bowitz, C. 1948. Polychaeta from the " Michael Sars " North Atlantic Deep-Sea Exped. 1910. *Rep. Sars N. Atl. Deep-Sea Exped*. **5**(8) : 1–91, 51 figs.

Dales, R. P. 1957. Pelagic polychaetes of the Pacific Ocean. *Bull. Scripps Inst. Oceanogr*. **7** : 99–167, 64 figs.

Hartman, O. 1959. Allan Hancock Foundation Publications No. 23, *Catalogue of the Polychaetous Annelids of the World*

Tebble, N. 1960. The distribution of pelagic polychaetes in the South Atlantic Ocean. " *Discovery* " *Report* **30** : 161–300, 52 figs.

—— 1962. The distribution of pelagic polychaetes across the North Pacific Ocean. *Bull. Brit. Mus. (nat. Hist.) Zool*. **7**(9) : 371–492

By R. Alvarado and I. Moreno (*Museo Nacional de Ciencias Naturales, Madrid, Spain*)

In view of the fact that *Krohnia* is now in use in Polychaeta, as Dr. Tebble (in a letter dated 8 Nov. 1963) has pointed out, we have considered the proposal submitted and published (*Bull. zool. Nomencl*. **20** : 381–382) as a case included under the Code (Arts. 53, 60 and 67(i)).

Considering the literature concerned with both the nominal genera *Eukrohnia* and *Krohnia* we have modified our first proposal and the new one is submitted as follows:

The International Commission is requested:

(1) to place the generic name *Eukrohnia* Ritter-Zahony, 1909 (gender : feminine), type-species by original designation, *Sagitta hamata* Möbius, 1875, on the Official List of Generic Names in Zoology;

(2) to place the specific name *hamata* Möbius, 1875, as published in the binomen *Sagitta hamata* (type-species of *Eukrohnia* Ritter-Zahony, 1909) on the Official List of Specific Names in Zoology;

(3) to place the generic name *Krohnia* Langerhans, 1880 (a junior homonym of *Krohnia* Quatrefages, 1865) on the Official Index of Rejected and Invalid Generic Names in Zoology.

COMMENT ON THE PROPOSED VALIDATION OF *BORIOMYIA* BANKS, 1905. Z.N.(S.) 1531

(see volume 20, pages 305–306)

By F. M. Carpenter (*Harvard University, Cambridge, Mass., U.S.A.*)

Although the basic chronology has been correctly set forth by Mr. Kimmins in his first four paragraphs, his fifth, sixth and seventh paragraphs require some clarification. The following comments are directed to these paragraphs:

(1) Mr. Kimmins states that the application of the Rules has led to the " adoption of an interpretation of the generic name *Boriomyia* Banks contrary to the original intention of the author ". In support of this, Mr. Kimmins quotes from my revision of the Hemerobiidae (1940) in which I reported that Mr. Banks had told me (1940) that the sequence of publication of his two papers (1904, 1905) was the reverse of the sequence which he expected. I included this statement in my 1940 revision because Mr. Banks felt he should explain why he did not designate a type-species of *Boriomyia* in his 1904 paper. I feel that I should now add that, in the same conversation, Mr. Banks further stated that he was nevertheless in complete agreement with Mr. Killington's treatment of *Boriomyia* (1937, p. 253) and he admonished me to follow Killington in my revision, i.e., using *Boriomyia* in its 1904 sense.

Quite apart from Mr. Banks' opinion, it is not his intentions which should determine the validity of the name, but the actual record of publication. If we are to inject the highly subjective factor of intention in our nomenclature, we might as well dispense with all rules.

(2) Mr. Kimmins states in paragraph 6 that although Killington's action is justified under the Rules, his generic name *Kimminsia* has not been universally adopted. I consider this statement misleading. A survey of the literature on *Boriomyia* and *Kimminsia* subsequent to 1937 (when Killington called attention to the confusion over the type-species of *Boriomyia* shows that the names *Kimminsia* and *Boriomyia* have been used in the 1904 sense (i.e., Killington's) by Carpenter (1940), Eglin (1940), Fraser (1940, 1942, 1951, 1953, 1959), Friedrich (1953), Kimmins (1952), MacLeod (1960), Meinander (1963), Nakahara (1956, 1960) and Parfin (1956). In fact, so far as I am aware, Mr. Tjeder has been the only one, in all the years since 1937, who has adhered to the use of *Boriomyia* Banks (*sensu* 1905)! The only exception to that statement is Zelený (1963), who has made it clear (*in. litt.*) that he arbitrarily followed Tjeder, without investigating the history of the case.

(3) Mr. Kimmins proposes in paragraph 7 that " stability in nomenclature in this case be attained by suppressing the generic name *Boriomyia* Banks, 1904, and by placing *Boriomyia* Banks, 1905, on the official list of generic names ". As a matter of fact, stability could better be attained by retaining the name *Boriomyia* Banks, 1904, with *fidelis* Banks as the type-species; since this is in accordance with the Rules and in accordance with actual usage, except for Mr. Tjeder.

(4) The introduction of the question of whether or not *Wesmaelius* Krüger, 1922, and *Kimminsia* Killington, 1937 (=*Boriomyia* Banks, 1905) are congeneric is entirely irrelevant to the proposal to validate *Boriomyia* Banks, 1904. This synonymy, suggested by Tjeder, is entirely a matter of his opinion, which I do not share. If *Wesmaelius* and *Kimminsia* are congeneric, there are no problems involving *Boriomyia*, since *Wesmaelius* is available for the genus for which *Kimminsia* was established.

From a consideration of all the facts involved in this case, I believe Mr. Kimmins' proposal should be rejected.

ADDENDUM TO OPINION 643

RULING.—(1) Paragraphs 1 (b) (ii), 1 (b) (iii), 2 (e), 4 (i) and 4 (m) of the Ruling given in Opinion 643 are hereby cancelled.

(2) The generic name *Saduria* Adams, 1852 (gender: feminine), type-species, by monotypy, *Oniscus entomon* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1500.

(3) The generic name *Mesidotea* Richardson, 1905, (a junior objective synonym of *Saduria* Adams, 1852) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 1579.

(4) The entry on the Official List of Specific Names in Zoology concerning *Oniscus entomon* Linnaeus, 1758, (para. 3 (f) of the Ruling of Opinion 643) is hereby amended to read as follows:

entomon Linnaeus, 1758, as published in the binomen *Oniscus entomon* (type-species of *Saduria* Adams, 1852) (Name No. 1587).

EXPLANATION

In considering the number of votes cast for the alternative proposal of Dr. Lemche in this case, the Secretariat overlooked the fact that Dr. Lemche's proposal called for a more drastic use of the plenary powers than the original proposal of Drs. Heegaard and Holthuis, and therefore needed a two-thirds majority over the latter. In consequence certain portions of the Ruling given in Opinion 643 (those concerned with the suppression of *Saduria* Adams, 1852, and *Idotaega* Lockington, 1877) were invalid, having not obtained the two-thirds majority vote stipulated in the Commission's By-Laws.

This error was pointed out by Dr. Holthuis after Opinion 643 had been published in *Bull. zool. Nomencl.* **20**: 18–25. In accordance with the By-Laws, since Alternative B presented on Voting Paper (61)34, obtained a majority, but not a two-thirds majority, of the votes cast, the vote taken on that Voting Paper was treated as a preliminary vote only. On 13 May 1963, therefore, the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)24 either for alternative A (as set out in *Bull. zool. Nomencl.* **17**: 182–184 and supplemented in paragraph 6 of the report reproduced in *Bull. zool. Nomencl.* **20**: 20–23) or for Alternative B (as set out in *Bull. zool. Nomencl.* **17**: 183–185, and supplemented and amended in paragraphs 6 and 7 of the report reproduced in *Bull. zool. Nomencl.* **20**: 20–23).

At the close of the prescribed Voting period on 13 August 1963 the state of the voting was as follows:

For Alternative A—eleven (11), received in the following order: Boschma, Holthuis, Stoll, Bonnet, Alvarado, Obruchev, Borchsenius, Uchida, Tortonese, Miller, Mertens.

For Alternative B—twelve (12): China, Vokes, Hering, do Amaral, Mayr, Jaczewski, Lemche, Riley, Binder, Evans, Kuhnelt, Brinck.

On Leave of Absence—three (3): Bradley, Key, Prantl.

Voting Papers not returned—one (1): Munroe.

Commissioner Hemming returned a late vote in favour of Alternative A.

Since Dr. Lemche's proposal has again not obtained the necessary two-thirds majority, the proposal of Heegaard and Holthuis (Alternative B) is deemed to have been adopted. The Ruling given in Opinion 643 is corrected accordingly, by the withdrawal of the generic name *Mesidotea* from the Official List and its entry on the Official Index together with the withdrawal of *Saduria* and *Idotaega* from the Official Index (those names having not been validly suppressed under the plenary powers) and the entry of *Saduria* on the Official List.

CERTIFICATE

I certify that the votes cast on Voting Paper (63)24 were cast as set out above, that the proposal set out in that Voting Paper as Alternative A has been duly adopted, and that the decision so taken, being the decision of the International Commission is truly recorded in the present Addendum to Opinion 643.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
4 *November* 1963

OPINION 696

PARTHENOPE WEBER, 1795, AND *DALDORFIA* RATHBUN, 1904 (CRUSTACEA, DECAPODA): PLACED ON THE OFFICIAL LIST OF GENERIC NAMES

RULING.—(1) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Parthenope* Weber, 1795 (gender: feminine), type-species, by designation by Rathbun, 1904, *Cancer longimanus* Linnaeus, 1758) (Name No. 1581);

(b) *Daldorfia* Rathbun, 1904 (gender: feminine), type-species, by monotypy, *Cancer horridus* Linnaeus, 1758 (Name No. 1582).

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *horridus* Linnaeus, 1758, as published in the binomen *Cancer horridus* (type-species of *Daldorfia* Rathbun, 1904) (Name No. 1962);

(b) *longimanus* Linnaeus, 1758, as published in the binomen *Cancer longimanus* (type-species of *Parthenope* Weber, 1795) (Name No. 1963).

(3) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Lambrus* Leach, 1815 (a junior objective synonym of *Parthenope* Weber, 1795) (Name No. 1678);

(b) *Parthenope* Fabricius, 1793 (a junior homonym of *Parthenope* Weber, 1795) (Name No. 1679).

(4) The family-group name PARTHENOPIDAE (correction of PARTHENOPINA) Macleay, 1838 (type-genus *Parthenope* Weber, 1795) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 362.

(5) The family-group name PARTHENOPINA Macleay, 1838 (an incorrect original spelling for PARTHENOPIDAE) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Number 399.

HISTORY OF THE CASE (Z.N.(S.)1487)

The present case was submitted to the office of the Commission by Dr. L. B. Holthuis in June 1961. Dr. Holthuis' application was sent to the printer on 13 July 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 58–60. Public Notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). Objections to Dr. Holthuis' case were advanced by Dr. D. N. Johnson, Dr. Fenner A. Chace and Dr. John S. Garth. These were published together with a reply by Dr. Holthuis in *Bull. zool. Nomencl.* **19** : 314; **20** : 99–101. The following further letter from Dr. Holthuis was sent to Commissioners with V.P.(63)17:

" Recently I received the reactions of Dr. Fenner A. Chace, Jr., and Dr. John S. Garth on my application in *Bull. zool. Nomencl.* **19**(1) : 58–60) concerning the names *Parthenope* Weber, 1795, *Parthenope* Fabricius, 1798 and

Lambrus Leach, 1815. The arguments given by Drs. Chace and Garth to keep strictly to the Rules and not to use the plenary powers here, are, I have to admit, quite strong. It is a matter of personal opinion whether or not one considers the degree of frequency in which the incorrect names are used more than the correct ones sufficiently great to offset the disadvantages of the suspension of the Rules. Since European authors are more used to the incorrect names, they are more easily inclined to think the invoking of the plenary powers justified. However, also the viewpoint that the Rules should be applied here strictly can be well defended as shown by Drs. Chace and Garth. The present problem indeed is one of those borderline cases in which both parties have almost equally strong arguments in favour of their viewpoints.

" Whether or not my proposal is accepted by the Commission, it will be of the utmost importance that a decision on this question be taken one way or the other, so that finally an end be made to the double usage of the generic name *Parthenope* in carcinological literature. Neither Dr. Chace nor Dr. Garth have suggested an alternative action for the event that the Commission rejects my proposal. Therefore, I would suggest that in that case the Commission take the following decisions, which agree with the viewpoints of my opponents:

(1) place on the Official List of Generic Names in Zoology the following names:
    (a) *Parthenope* Weber, 1795;
    (b) *Daldorfia* Rathbun, 1904:
(2) place on the Official List of Specific Names in Zoology the following names:
    (a) *horridus* Linnaeus, 1758, as published in the combination *Cancer horridus* (the name of the type-species of the genus *Daldorfia* Rathbun, 1904);
    (b) *longimanus* Linnaeus, 1758, as published in the combination *Cancer longimanus* (the name of the type-species of the genus *Parthenope* Weber, 1795);
(3) place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
    (a) *Lambrus* Leach, 1815 (an objective junior synonym of *Parthenope* Weber, 1795);
    (b) *Parthenope* Fabricius, 1798 (a junior homonym of *Parthenope* Weber, 1795).
(4) identical to par. (4) of my proposal.
(5) identical to par. (6) of my proposal.

" It is hoped, that whatever decision the Commission may make, carcinologists all over the world will abide by this decision so that finally uniformity will be established in the nomenclature of the group."

DECISION OF THE COMMISSION

On 13 May 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)17 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 60. At the close of the prescribed Voting Period on 13 August 1963 the state of the voting was as follows:

Affirmative votes—nine (9), received in the following order: Holthuis, Hering, Bonnet, Obruchev, Binder, Borchsenius, Uchida, Tortonese, Kühnelt.

Negative votes—fourteen (14): China, Boschma, Vokes, Stoll, do Amaral, Mayr, Alvarado, Jaczweski, Lemche, Riley, Miller, Evans, Brinck, Mertens.

On Leave of Absence—three (3): Bradley, Key, Prantl.

Voting Papers not returned—one (1): Munroe.

Commisioner Hemming returned a late affirmative vote.

The following comments were made by Commissioners in returning their votes:

Dr. Henning Lemche (24.vi.63): The case is very controversial, but the consistency in the American usage of the formally correct nomenclature cannot be left without support—even though the way in which Weber's names gained priority has never appeared morally correct in the minds of European authors.

Dr. Per Brinck (7.viii.63): I think that the arguments presented by Dr. Holthuis are reliable and that his application means a safe way out of present double usage of *Parthenope*. When—in spite of this—I vote against the proposal this is because of the series of strong objections which have been presented by various carcinologists.

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

Daldorfia Rathbun, 1904, *Proc. biol. Soc. Washington* 17 : 171
horridus, Cancer, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 629
Lambrus Leach, 1815, *Trans. linn. Soc. Lond.* **11** : 310
longimanus, Cancer, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 629
Parthenope Fabricius, 1798, *Suppl. Ent. syst.*: 315, 352
Parthenope Weber, 1795, *Nomencl. ent. Syst. Fabr.*: 92
PARTHENOPIDAE Macleay, 1838, *Smith's Illustr. Zool. S. Afr.* (Invert.) : 55
PARTHENOPINA Macleay, 1838, in incorrect original spelling for PARTHENOPIDAE q.v.

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling:

For *Parthenope* Weber, 1795 : Rathbun, 1904, *Proc. biol. Soc. Washington* **17** : 170, 171

CERTIFICATE

I certify that the votes cast on Voting Paper (63)17 were cast as set out above, that the proposal adopted was the proposal put forward as an alternative to the use of the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 696.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
21 *September* 1963

OPINION 697

DOTO OKEN, 1815 (GASTROPODA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers:

(a) the generic name *Doto* Oken, 1807, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy;

(b) the generic name *Doto* Oken, 1815, is hereby validated, with type-species *Doris coronata* Gmelin, 1791.

(2) The generic name *Doto* Oken, 1815 (gender: feminine), type-species, by designation under the plenary powers in (1) above, *Doris coronata* Gmelin, 1791, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1583.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *coronata* Gmelin, 1791, as published in the binomen *Doris coronata* (type-species of *Doto* Oken, 1815) (Name No. 1964);

(b) *fragilis* Forbes, 1838, as published in the binomen *Melibaea* [sic] *fragilis* (Name No. 1965);

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Doto* Oken, 1807 (as suppressed under the plenary powers in (1) above) (Name No. 1680);

(b) *Dota* Gray, 1840 (an incorrect spelling for *Doto* Oken, 1815) (Name No. 1681);

(c) *Melibaea* Forbes, 1838 (an incorrect spelling for *Melibe* Rang, 1829) (Name No. 1682);

(d) *Meliboea* Forbes, 1838 (an incorrect spelling for *Melibe* Rang, 1829) (Name No. 1683);

(e) *Dotilla* Bergh, 1879 (a junior homonym of *Dotilla* Stimpson, 1858) (Name No. 1684);

(f) *Dotona* Rafinesque, 1815 (a *nomen nudum*) (Name No. 1685);

(g) *Dotona* Iredale, 1918 (a junior homonym of *Dotona* Carter, 1880) (Name No. 1686).

(5) The family-group name DOTIDAE (correction of DOTONIDAE) Gray, 1853 (type-genus *Doto* Oken, 1815) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 363.

(6) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

Bull. zool. Nomencl., Vol. 21, Part 2. April 1964.

(a) DOTONIDAE Gray, 1853 (type-genus *Doto* Oken, 1815) (an incorrect original spelling for DOTIDAE) (Name No. 400);
(b) DOTOIDAE Jeffreys, 1896 (type-genus *Doto* Oken, 1815) (an incorrect spelling for DOTIDAE Gray, 1853) (Name No. 401).

HISTORY OF THE CASE (Z.N.(S.) 1006)

The present case was first submitted to the office of the Commission in February 1956 by Dr. Henning Lemche. A revised version of Dr. Lemche's application was sent to the printer on 20 October 1961 and was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 156–159. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the Bulletin as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two specialist serials.

Dr. Lemche's proposals were supported by Professor H. Engel and Professor Nils Odhner. Dr. Odhner, however, objected to the form of the family-group name proposed for addition to the Official List (*Bull. zool. Nomencl.* **20** : 138), Further correspondence on the correct form of the family based on *Doto* was sent to Commissioners with Voting Paper (63)18, and is reproduced below.

Prof. L. W. Grensted (Classical adviser to the Commission) (27.ii.63)

Doto is the name of a sea-nymph, found in Homer and Hesiod and taken over by Virgil and Valerius Flaccus into Latin. The Latin use is of course decisive, but in fact the Greek gives the same result.

In Greek: Δωτώ gives the genitive Δωτοῦς. This is contracted from Δωτόος, and Dr. Lemche is right grammatically in treating Δωτο- (Doto-) as the stem. But normal usage is to treat -οῦς as the genitive termination, giving the stem Dot- and the family-group name DOTIDAE.

This is actually the answer given in the Table in the Rules, p. 138, in the parallel case of αιδώς-οῦς and ἠχώ-οϋς (aidōs-ous and ēcho-ous), so that though there is a case for Dr. Lemche's DOTOIDAE that answer is not allowed by the Rules.

In Latin, which as I say is decisive. Doto has the genitive Dotūs, where -ūs is simply the Latinization of the Greek -οῦς. This must give Dot- as the stem and DOTIDAE as the family-group name.

Actually this termination and genitive are not (and ought to be) given in the Table on p. 123 of the Rules, and of course are just a direct transliteration of the Greek. But that does not affect the answer to the question.

DOTONIDAE is simply wrong, as there is no genitive Dotonis
DOTOIDAE is wrong, but very nearly right
DOTIDAE is the only answer possible under the Rules, and remembering that the Latin has priority as against the original Greek.

Prof. Nils Odhner (7.iii.63)

In this case we have the possibility of comparing the *nomen proprium* Doto with the *n.pr.* Dido, genitive Didous or (in Latin) Didonis (cf. A.G.G. Salenius, Latin-Swedish Dictionary, Stockholm, 1873). By analogy with Didonis, it is quite justifiable to adopt the genitive form Dotonis, at least as a *licentia scienciae* —and the problem is solved. The Commission has sanctioned such linguistically impossible, though nomenclatorially practical, genitives as *möbiusi*; why not admit the " new " form Dotonis (perhaps to be linguistically avoided, but analogically consequent and nomenclatorially quite practical)? I therefore recommend the first use of the family name DOTONIDAE auct. for the Official List of Family-Group Names, and that the names DOTIDAE and DOTOIDAE be rejected. It may be added that the first of these two reminds one more of dos, dotis (= dowry) than of the zoological name *Doto*.

Dr. Henning Lemche (19.iii.63)

In reply to your letter concerning the spelling of the name DOTOIDAE/ DOTONIDAE, and the statement by Prof. Grensted, I should like to say that I am very little concerned with this problem. I shall gladly accept the form DOTIDAE if that is the correct spelling, and I see no chance of any confusion arising out of a change-over to that spelling. Nobody can be in any doubt as to what is meant, and that is what matters.

DECISION OF THE COMMISSION

On 13 May 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)13 (A) either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 158–159, paras. (1)–(4); (B) either for the addition of DOTIDAE to the Official List with addition of DOTONIDAE and DOTOIDAE to the Index or for the postponement of a decision on the family name until the possible use of the plenary powers has been advertised. At the close of the prescribed voting period on 13 August 1963 the state of the voting was as follows:

Part A. Affirmative votes—twenty-three (23), received in the following order: China, Boschma, Holthuis, Vokes, Stoll, Hering, Bonnet, do Amaral, Mayr, Alvarado, Obruchev, Lemche, Riley, Binder, Borchsenius, Uchida, Tortonese, Jaczewski, Miller, Evans, Kühnelt, Brinck, Mertens.

Negative votes—none (0).

Voting Papers not returned—one (1): Munroe

On Leave of Absence—three (3): Bradley, Key, Prantl

Part B. For the addition of DOTIDAE to the Official List: — Sixteen (16): China, Boschma, Holthuis, Stoll, do Amaral, Mayr, Obruchev, Lemche, Riley, Borchsenius, Uchida, Tortonese, Jaczewski, Miller, Evans, Brinck.

For postponement of a decision—two (2): Vokes, Binder.

Commissioner Hemming returned a late vote, voting in the affirmative in Part A and for the addition of DOTIDAE to the Official List in Part B.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

coronata, *Doris*, Gmelin, 1791, *Syst. Nat.* (ed. 13) **1** : 3105
Dota Gray, 1840, *Syn. Cont. Brit. Mus.* (ed. 42) : 148
Dotilla Bergh, 1879, *Verh. zool. -bot. Ges. Wien* **28** : 574
DOTIDAE Gray, 1853, *Ann. Mag. nat. Hist.* (2) **11** : 220
Doto Oken, 1815 *Lehrb. Naturgesch.* (3) **1** : 278

DOTOIDAE Jeffreys, 1869, *Brit. Conch.* **5** : 59
Dotona Iredale, 1918, *Proc. malac. Soc. Lond.* **13** : 30
Dotona Rafinesque, 1815, *Analyse Nature*: 161
DOTONIDAE Gray, 1853, an incorrect original spelling for DOTIDAE q.v.
fragilis, Melibaea, Forbes, 1838, *Malac. Monensis*: 4
Melibaea Forbes, 1838, *Malac. Monensis*: 4
Meliboea Forbes, 1838, *Malac. Monensis*: 59

CERTIFICATE

I certify that the votes cast on Voting Paper (63)18 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 697.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
24 *September* 1963

OPINION 698

LYSTROPHIS COPE, 1885 (REPTILIA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) the generic name *Rhinostoma* Fitzinger, 1826;
(b) the specific name *nasua* Wagler, 1830, as published in the binomen *Vipera nasua*.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Lystrophis* Cope, 1885 (gender: masculine), type-species, by original designation, *Heterodon dorbignyi* Duméril, Bibron & Duméril, 1854 (Name No. 1584);
(b) *Phimophis* Cope, 1860 (gender: masculine), type-species, by monotypy, through *Rhinosimus* Duméril, Bibron & Duméril, 1854, *Rhinosimus guerini* Duméril, Bibron & Duméril, 1854 (Name No. 1585);
(c) *Simophis* Peters, 1860 (gender: masculine), type-species, by monotypy, *Heterodon rhinostoma* Schlegel, 1837 (Name No. 1586).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *dorbignyi* Duméril, Bibron & Duméril, 1854, as published in the binomen *Heterodon dorbignyi* (type-species of *Lystrophis* Cope, 1885) (Name No. 1966);
(b) *guianensis* Troschel, 1848, as published in the binomen *Heterodon guianensis* (Name No. 1967);
(c) *guerini* Duméril, Bibron & Duméril, 1854, as published in the binomen *Rhinosimus guerini* (type-species of *Phimophis* Cope, 1860) (Name No. 1968);
(d) *nigrum* Duméril, Bibron & Duméril, 1854, as published in the combination *Scytale neuwiedii* var. *nigrum* (Name No. 1969);
(e) *rhinostoma* Schlegel, 1837, as published in the binomen *Heterodon rhinostoma* (type-species of *Simophis* Peters, 1860) (Name No. 1970).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Rhinostoma* Fitzinger, 1826 (suppressed under the plenary powers in (1) above) (Name No. 1687);
(b) *Rhinosiphon* Fitzinger, 1843 (a nomen nudum) (Name No. 1688);
(c) *Rhinaspis* Fitzinger, 1843 (a nomen nudum) (Name No. 1689);
(d) *Rhinosimus* Duméril, Bibron & Duméril, 1854 (a junior homonym of *Rhinosimus* Latreille, [1802–1803]) (Name No. 1690).

(5) The following specific names are hereby placed on the Official List of

Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *nasua* Wagler, 1830, as published in the binomen *Vipera nasua* (suppressed under the plenary powers in (1) above) (Name No. 785);

(b) *proboscidea* Fitzinger, 1826, as published in the binomen *Rhinostoma proboscidea* (a nomen nudum) (Name No. 786);

(c) *proboscidea* Fitzinger, 1843, as published in the binomen *Rhinostoma* (*Rhinaspis*) *proboscidea* (a nomen nudum) (Name No. 787).

HISTORY OF THE CASE (Z.N.(S.) 1484)

The present case was submitted to the office of the Commission by Dr. Joseph R. Bailey in June 1961. Dr. Bailey's application was sent to the printer on 20 October 1961 and was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 164–169. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two herpetological serials. Dr. Bailey's proposals were supported by Professor Hobart M. Smith and Professor A. do Amaral (*Bull. zool. Nomencl.* **20** : 83).

DECISION OF THE COMMISSION

On 13 May 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)19 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 166–167. At the close of the prescribed voting period on 13 August 1963 the state of the voting was as follows:

Affirmative votes—twenty-three (23), received in the following order: China, Boschma, Holthuis, Vokes, Stoll, Hering, Bonnet, do Amaral, Mayr, Alvarado, Obruchev, Lemche, Riley, Binder, Borchsenius, Jaczewski, Uchida, Tortonese, Miller, Evans, Kühnelt, Brinck, Mertens.

Negative votes—none (0).

On Leave of Absence—three (3): Bradley, Key, Prantl.

Voting Papers not returned—one (1): Munroe.

Commissioner Hemming returned a late affirmative vote.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

dorbignyi, *Heterodon*, Duméril, Bibron & Duméril, 1854, *in* Roret's Suites à Buffon, *Erpét. Gén.* **7** : 772

guerini, *Rhinosimus*, Duméril, Bibron & Duméril, 1854, *in* Roret's Suites à Buffon, *Erpét. Gén.* **7** : 991

guianensis, *Heterodon*, Troschel, 1848, *in* Schomburgk, *Reisen in Britisch-Guiana*, Reptilien: 653

Lystrophis Cope, 1885, *Proc. amer. phil. Soc.* **22** : 193

nasua, *Vipera*, Wagler, 1830, *Natürl. Syst. Amph.*: 171

nigrum, *Scytale neuwiedii* var., Duméril, Bibron & Duméril, 1854, *in* Roret's Suites à Buffon, *Erpét. Gén.* **7** : 1002

Phimophis Cope, 1860, *Proc. Acad. nat. Sci. Philad.* **12** : 79

proboscidea, *Rhinostoma*, Fitzinger, 1826, *Neue Classif. Rept.*: 56
proboscidea, *Rhinostoma*, (*Rhinaspis*), Fitzinger, 1843, *Syst. Rept.*: 26
Rhinaspis Fitzinger, 1843, *Syst. Rept.*: 26
Rhinosimus Duméril, Bibron & Duméril, 1854, *in* Roret's Suites à Buffon, *Erpét. Gén.* **7** : 991
Rhinosiphon Fitzinger, 1843, *Syst. Rept.*: 26
Rhinostoma Fitzinger, 1826, *Neue Classif. Rept.*: 56, 29
rhinostoma, *Heterodon*, Schlegel, 1837, *Essai Phys. Serpens* **2** : 100
Simophis Peters, 1860, *Monatsb. K.-preuss. Akad. Wiss.* Berlin, **1860** : 521

CERTIFICATE

I certify that the votes cast on Voting Paper (63)19 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 698.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
10 *October* 1963

OPINION 699

GRYLLUS CAMPESTRIS LINNAEUS, 1758 (INSECTA, ORTHOPTERA): DESIGNATION OF A NEOTYPE UNDER THE PLENARY POWERS

RULING.—Under the plenary powers the nominal species *Gryllus campestris* Linnaeus, 1758, is to be interpreted by reference to the neotype designated by D. K. McE. Kevan, 1962.

HISTORY OF THE CASE (Z.N.(S.) 1485)

The present case was first submitted to the office of the Commission by Dr. D. K. McE. Kevan in June 1961. An amended version of Dr. Kevan's application was sent to the printer on 20 October 1961 and was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 170–172. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The application was supported by Dr. D. R. Ragge.

DECISION OF THE COMMISSION

On 13 May 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)20 either for or against the proposal set out in *Bull. zool. Nomencl.* **19** : 171. At the close of the prescribed voting period on 13 August 1963 the state of the voting was as follows:

Affirmative votes—twenty-two (22), received in the following order: China, Boschma, Vokes, Stoll, Hering, Bonnet, do Amaral, Mayr, Alvarado, Obruchev, Lemche, Riley, Binder, Borchsenius, Jaczewski, Uchida, Tortonese, Miller, Evans, Kühnelt, Brinck, Mertens.

Negative votes—one (1): Holthuis.

On Leave of Absence—three (3): Bradley, Key, Prantl.

Voting Papers not returned—one (1): Munroe.

Commissioner Hemming returned a late affirmative vote. The following comments were made by Commissioners in returning their votes:

Dr. L. B. Holthuis (20.v.63). If the specimens figured by Frisch and Roesel on the plates to which Linnaeus (1758) in the original description of *Gryllus campestris* refers, are what is generally considered to be the true *Gryllus campestris*, one of them could be selected the lectotype of Linnaeus' species. In this way the identity of the species can be fixed in the currently adopted sense without interference by the Commission.

Professor E. Mayr (4.vi.63). The application is misleading. Linnaeus had no type concept, as proven by H. Svenson, Ramsbottom and Arthur Cain. The specimens in the Linnaean collection are not types in the modern sense. The references to Frisch and Roesel carry an equal amount of weight as the specimens in the collection. Actually this is a name based on composite material and should be handled by restriction by a first reviser.

Dr. H. Lemche (24.vi.63). The proposal is accepted though I cannot follow the applicant in his reasoning. The *Gryllus campestris* Linnaeus was certainly a composite species, but there is no proof that all of Linnaeus' material is still present in London. Thus the female mentioned cannot be regarded as a holotype. Still, however, a neotype selection is needed to secure stability.

REFERENCES

The specific name *Gryllus campestris* was placed on the Official List of Specific Names in Zoology with the Name Number 1283 by the Ruling given in Direction 64. The following is the original reference for the designation of a neotype for that species:

Kevan, D. K. McE., 1961, *Bull. zool. Nomencl.* **19** : 171

CERTIFICATE

I certify that the votes cast on Voting Paper (63)20 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 699.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
10 *October* 1963

OPINION 700

DASIOPS ALVEOFRONS MOFFITT & YARUSS, 1961 (INSECTA, DIPTERA): SUPPRESSED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the specific name *alveofrons* Moffitt and Yaruss, 1961, as published in the binomen *Dasiops alveofrons*, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

(2) The specific name *alveofrons* McAlpine, 1961, as published in the binomen *Dasiops alveofrons*, is hereby placed on the Official List of Specific Names in Zoology with the Name Number 1971.

(3) The specific name *alveofrons* Moffitt & Yaruss, 1961, as published in the binomen *Dasiops alveofrons* (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Number 788.

HISTORY OF THE CASE (Z.N.(S.) 1492)

The present case was submitted to the office of the Commission by Dr. J. F. McAlpine, Dr. H. R. Moffitt and Dr. F. L. Yaruss in July 1961. The application was sent to the printer on 22 August 1961 and was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 173. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. No objection was received.

DECISION OF THE COMMISSION

On 13 May 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)21 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 73. At the close of the prescribed voting period the state of the voting was as follows:

Affirmative votes—twenty-one (21), received in the following order: China, Boschma, Holthuis, Vokes, Stoll, Hering, Bonnet, do Amaral, Mayr, Alvarado, Obruchev, Lemche, Riley, Binder, Borchsenius, Uchida, Tortonese, Miller, Evans, Kühnelt, Brinck.

Negative votes—two (2): Jaczewski, Mertens.

On Leave of Absence—three (3): Bradley, Key, Mertens.

Voting Papers not returned—one (1): Munroe.

Commissioner Hemming returned a late affirmative vote. The following comment was made by Prof. Jaczewski in returning his negative vote:

" In my opinion no action is necessary as the case falls clearly under Art. 50 and 51 of the new Code. The correct citation of the species in question would be: *Dasiops alveofrons* McAlpine in Moffitt & Yaruss, 1961. Let us apply the Code instead of resorting to the plenary powers of the Commission in every minor and simple case!"

ORIGINAL REFERENCES

The following are the original references for names placed on Official List and Index by the Ruling given in the present Opinion:

alveofrons, Dasiops, McAlpine, 1961, *Canad. Ent.* **93** (7) : 539–544
alveofrons, Dasiops, Moffitt & Yaruss, 1961, *J. econ. Ent.* **54** (3) : 504–505

CERTIFICATE

I certify that the votes cast on Voting Paper (63)21 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 700.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
10 *October* 1963

COMMENTS ON THE PROPOSAL TO PLACE *ACARUS TELARIUS*, *TROMBIDIUM TILIARIUM* AND *TETRANYCHUS URTICAE* ON THE OFFICIAL LIST Z.N.(S.) 1564

(see volume 20, pages 363–366)

By Wm. L. Putman (*Canada Department of Agriculture, Vineland Station, Ontario, Canada*)

Tetranychid mites are so important economically that their nomenclature concerns many biologists other than taxonomists. Any reasonable proposal to resolve the long-standing chaos in the use of these names deserves consideration. The application of Boudreaux and Dosse appears to be based on sound principles consistent with the Code of Zoological Nomenclature. I therefore wish to support this petition.

By Donald E. Johnston, Willi Knülle and G. W. Wharton (*Institute of Acarology, Ohio Agricultural Experiment Station*), Clifford R. Cutright, Howard Y. Forsythe, Jr., Ralph B. Neiswander and Roy W. Rings (*Department of Zoology and Entomology, Ohio Agricultural Experiment Station, Wooster, Ohio, U.S.A.*)

The currently existing confusion, coupled with the wide need of names for these mites in the literature of applied and basic biology, demands stability in nomenclature. The actions proposed by Boudreaux and Dosse will not only lead to stability but have the added merit of being entirely consistent with all available information pertinent to the nomenclature of these mites and with the Code. In our opinion such a proposal is more likely to lead to stability than one involving suspension of the Code in order to validate the proponent's current usage. The designation of neotypes for the species involved and the deposition of these in the British Museum (Nat. Hist.) is also to be commended.

OPINION 701

PISIDIA LEACH, 1820, DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS; AND *CANCER ISTRIANUS* SCOPOLI, 1763, SUPPRESSED UNDER THE PLENARY POWERS (CRUSTACEA, DECAPODA)

RULING.—(1) Under the plenary powers:

(a) all designations of type-species for the nominal genus *Pisidia* Leach, 1920, made prior to the present Ruling, are hereby set aside and the nominal species *Cancer longicornis* Linnaeus, 1767, is hereby designated to be the type of that genus;

(b) the specific name *istrianus* Scopoli, 1763, as published in the binomen *Cancer istrianus*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Petrolisthes* Stimpson, 1858 (gender: masculine), type-species by original designation, *Porcellana violacea* Guérin, 1820 (Name No. 1587);

(b) *Pisidia* Leach, 1820 (gender: feminine), type-species, by designation under the plenary powers in (1) above, *Cancer longicornis* Linnaeus, 1767 (Name No. 1588);

(c) *Porcellana* Lamarck, 1801 (gender: feminine), type-species, by monotypy, *Cancer platycheles* Pennant, 1777 (Name No. 1589).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *longicornis* Linnaeus, 1767, as published in the binomen *Cancer longicornis*, as defined by the lectotype designated by Holthuis, 1962 (type-species of *Pisidia* Leach, 1820) (Name No. 1972);

(b) *platycheles* Pennant, 1777, as published in the binomen *Cancer platycheles* (type-species of *Porcellana* Lamarck, 1801) (Name No. 1973);

(c) *violacea* Guérin, 1829, as published in the binomen *Porcellana violacea* (type-species of *Petrolisthes* Stimpson, 1858) (Name No. 1974).

(4) The family-group name PORCELLANIDAE Haworth, 1825 (type-genus *Porcellana* Lamarck, 1801) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 364.

(5) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Porcellana* Statius Müller, 1766 (a name published in a non-binominal work) (Name No. 1691);

(b) *Porcellana* Linck, 1783 (a name published in a non-binominal work) (Name No. 1692);

(c) *Porcellana* Meuschen, 1787 (a generic name not published in the nominative singular) (Name No. 1693);

(d) *Porcellana* Bruguière, 1792 (a nomen nudum not published for use in zoological nomenclature) (Name No. 1694).

(6) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *hexapus* Linnaeus, 1767, as published in the binomen *Cancer hexapus* (a junior objective synonym of *longicornis, Cancer*, Linnaeus, 1767) (Name No. 789);

(b) *histriae* Herbst, 1783, as published in the binomen *Cancer histriae* (an incorrect spelling for *istrianus, Cancer*, Scopoli, 1763) (Name No. 790);

(c) *histrianus* Nardo, 1869, as published in the binomen *Cancer histrianus* an) incorrect spelling for *istrianus, Cancer*, Scopoli, 1763) (Name No. (791;

(d) *histrio* Herbst, 1796, as published in the binomen *Cancer histrio* (an incorrect spelling for *istrianus, Cancer*, Scopoli, 1763) (Name No. 792);

(e) *istrianus* Scopoli, 1763, as published in the binomen *Cancer istrianus* (as suppressed under the plenary powers in (1) above) (Name No. 793);

(f) *linnaeana* Leach, 1820, as published in the binomen *Pisidia linnaeana* (a junior objective synonym of *longicornis, Cancer*, Linnaeus, 1767) (Name No. 794).

(7) The following works are hereby placed on the Official Index of Rejected and Invalid Works in Zoological Nomenclature with the Title Numbers specified:

(a) Linck, J. H., 1783–1787. *Index Musaei Linckiani, oder kurzes systematisches Verzeichnis der vornehmsten Stücke der Linckischen Naturaliensammlung zu Leipzig*, 3 volumes (vol. 1, 1783; vol. 2, 1786; vol. 3, 1787) (Title No. 68);

(b) Statius Müller, P. L., 1766. *Deliciae Naturae selectae; oder auslerlesenes Naturalien-Cabinet, welches aus den drey Reichen der Natur zeiget, was von curiosen Liebhabern aufbehalten und gesammelt zu werden verdient. Ehemals herausgegeben von Georg Wolfgang Knorr; fortgesetzt von dessen Erben*, 3 volumes (ed. 1, 1766; ed. 2, 1778; Dutch translation, 1771) (Title No. 69).

HISTORY OF THE CASE (Z.N.(S.) 1496)

The present case was submitted to the office of the Commission by Dr. L. B. Holthuis in August 1961. Dr. Holthuis' application was sent to the printer on 22 August 1961 and was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 179–181. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). No objection was received.

DECISION OF THE COMMISSION

On 13 May 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)22 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 179–181. At the close of the prescribed voting period on 13 August 1963 the state of the voting was as follows:

Affirmative votes—twenty-three (23), received in the following order: China, Boschma, Holthuis, Vokes, Stoll, Hering, Bonnet, do Amaral, Mayr, Alvarado, Obruchev, Jaczewski, Lemche, Riley, Binder, Borchsenius, Uchida, Tortonese, Miller, Evans, Kühnelt, Brinck, Mertens.

Negative votes—none (0).

On Leave of Absence—three (3): Bradley, Key, Prantl.

Voting Papers not returned—one (1): Munroe.

Commissioner Hemming returned a late affirmative vote. Dr. Lemche qualified his affirmative vote as follows: " I vote for the proposals with the exception of proposal (7). Though these works may deserve being rejected, it cannot be done in complete secrecy as here proposed. Their rejection is to be formally and distinctly proposed."

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

hexapus, Cancer, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1** : 1039
histriae, Cancer, Herbst, 1783, *Versuch Naturgesch. Krabben Krebse* **1** (2–5) : 97
histrianus, Cancer, Nardo, 1869, *Mem. Ist. Veneto Sci. Lett. Arti* **14** : 14
histrio, Cancer, Herbst, 1796, *Versuch Naturgesch. Krabben Krebse* **2** : 222
istrianus, Cancer, Scopoli, 1763, *Ent. carn.*: 409
linnaeana, Pisidia, Leach, 1820, *Dict. Sci. nat.* **18** : 54
longicornis, Cancer, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1** : 1040
Petrolisthes Stimpson, 1858, *Proc. Acad. nat. Sci. Philad.* **1858** : 227
Pisidia Leach, 1820, *Dict. Sci. nat.* **18** : 53
platycheles, Cancer, Pennant, 1777, *Brit. zool.* (ed. 4) **4** : 6
Porcellana Bruguière, 1792, *Ency. méth.* **1** (2) : 545
Porcellana Lamarck, 1801, *Syst. Anim. sans Vertèbr.*: 153
Porcellana Linck, 1783, *Index Mus. Linck.* **1** : 140
Porcellana Meuschen, 1787, *Mus. Geversianum.* : 398
Porcellana Statius Müller, 1766, *Deliciae Naturae* **1** : 129
PORCELLANIDAE Haworth, 1825, *Phil. Mag.* **65** : 108
violacea, Porcellana, Guérin, 1829, *in* Duperrey, *Voy.* " *Coquille* ", Zool. **2** (2) : pl. 3, fig. 2.

The following is the original reference for the designation of a lectotype for a species concerned in the present Ruling:

For *Cancer longicornis* Linnaeus, 1767 : L. B. Holthuis, 1962, *Bull. zool. Nomencl.* **19** : 178–179.

CERTIFICATE

I certify that the votes cast on Voting Paper (63)22 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 701.

W. E. CHINA *Acting Secretary*
International Commission on Zoological Nomenclature
London 11 *October* 1963

OPINION 702

STEREOMASTIS BATE, 1888 (CRUSTACEA, DECAPODA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Eryoneicus* Bate, 1882, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Stereomastis* Bate, 1888 (gender: feminine), type-species, by designation by Holthuis, 1962, *Pentacheles suhmi* Bate, 1878, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1590.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *sculptus* Smith, 1880, as published in the binomen *Polycheles sculptus* (Name No. 1975);

(b) *suhmi* Bate, 1878, as published in the binomen *Pentacheles suhmi* (type-species of *Stereomastis* Bate, 1888) (Name No. 1976).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Eryoneicus* Bate, 1882 (as suppressed under the plenary powers in (1) above) (Name No. 1695);

(b) *Eryonicus* Faxon, 1893 (an incorrect spelling for *Eryoneicus* Bate, 1882) (Name No. 1696).

HISTORY OF THE CASE (Z.N.(S.) 1497)

The present case was submitted to the office of the Commission by Dr. L. B. Holthuis in August 1961. Dr. Holthuis' application was sent to the printer on 22 August 1961 and was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 182–183. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). No objection was received.

DECISION OF THE COMMISSION

On 13 May 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)23 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 183. At the close of the prescribed voting period on 13 August 1963 the state of the voting was as follows:

Affirmative votes—twenty-three (23), received in the following order: China, Boschma, Holthuis, Vokes, Stoll, Hering, Bonnet, do Amaral, Mayr, Alvarado, Obruchev, Jaczewski, Lemche, Riley, Binder, Borchsenius, Uchida, Tortonese, Miller, Evans, Kühnelt, Brinck, Mertens.

Negative—none (0).
On Leave of Absence—three (3): Bradley, Key, Prantl.
Voting Paper not returned—one (1): Munroe.
Commissioner Hemming returned a late affirmative vote.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Index by the Ruling given in the present Opinion:

Eryoneicus Bate, 1882, *Ann. Mag. nat. Hist.* (5) **10** : 456
Eryonicus Faxon, 1893, *Bull. Mus. comp. Zool.*, Harvard **24** : 197, 198
sculptus, Polycheles, Smith, 1880, *Proc. U.S. nat. Mus.* **2** : 246
Stereomastis Bate, 1888, *Rep. Voy.* " *Challenger* " (Zool.) **24** : 154
suhmi, Pentacheles, Bate, 1878, *Ann. Mag. nat. Hist.* (5) **2** : 278

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling:

For *Stereomastis* Bate, 1888: L. B. Holthuis, 1962, *Bull. zool. Nomencl.* **19** : 183

CERTIFICATE

I certify that the votes cast on Voting Paper (63)23 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 702.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
11 *October* 1963

OPINION 703

PTEROPHORUS SCHÄFFER, 1766 (INSECTA, LEPIDOPTERA): ADDITION TO THE OFFICIAL LIST OF GENERIC NAMES

RULING.—(1) The generic name *Pterophorus* Schäffer, 1766 (gender: masculine), type-species, by designation by Whalley, 1961, *Phalaena pentadactyla* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1591.

(2) The specific name *pentadactyla* Linnaeus, 1758, as published in the binomen *Phalaena pentadactyla* (type-species of *Pterophorus* Schäffer, 1766) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 1977.

(3) The family-group name PTEROPHORIDAE Zeller, 1841 (type-genus *Pterophorus* Schäffer, 1766) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 365.

HISTORY OF THE CASE (Z.N.(S.) 1463)

The present application was submitted to the office of the Commission by Mr. P. E. S. Whalley in July 1960. An amended version of Mr. Whalley's application was sent to the printer on 22 September 1960 and was published on 14 April 1961 in *Bull. zool. Nomencl.* **18**: 159–160. Mr. Whalley's proposals were supported by Dr. L. Bigot (*Bull zool. Nomencl.* **19**: 141) and opposed by Prof. E. M. Hering (*Bull zool. Nomencl.* **18**: 333). The applicant's reply to Prof. Hering's objections was published in *Bull. zool. Nomencl.* **19**: 69.

DECISION OF THE COMMISSION

On 25 July 1962 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)25 either for or against the proposals set out in *Bull. zool. Nomencl.* **18**: 160. At the close of the prescribed voting period on 25 October 1962 the state of the voting was as follows:

Affirmative votes—nineteen (19), received in the following order: China, Holthuis, Riley, Obruchev, Evans, Uchida, Binder, do Amaral, Miller, Boschma, Lemche, Vokes, Tortonese, Stoll, Borchsenius, Mertens, Poll, Alvarado, Bonnet.

Negative votes—six (6): Mayr, Key, Jaczewski, Hering, Brinck, Kühnelt.

On Leave of Absence—three (3): Bradley, Munroe, Prantl.

Voting Papers not returned—one (1): Hemming.

The following comments were made by Commissioners in returning their votes:

Prof. Ernst Mayr (17.viii.62). " It does not seem to me that the conflicting statements have been sufficiently investigated. This is a very recent application, as evident from its serial number, and it would have seemed to me that Hering and Whalley should have been requested to present more detailed data on usage. It is difficult for a Commissioner to arrive at a reasoned judgment on the basis of the scanty and contradictory evidence so far available. This is particularly regrettable in the case of such an important genus as *Pterophorus*."

Dr. K. H. L. Key (24.vii.62). " I am voting against the application relating to *Pterophorus*, because there seems to be a great deal of unresolved confusion on several points at issue. Not only is there disagreement among the three specialists who have written to the Commission, but there is much internal inconsistency in the two statements by Whalley.

" The case has two aspects: (1) What would be the valid type-species of *Pterophorus* Geoffroy, if that genus were not unavailable as from Geoffroy? This is not strictly relevant, but it would provide a suitable species to designate as type-species of *Pterophorus* Schäffer provided that usage were not against such choice. In any case, one would like to feel that investigations on this point had led to a definite conclusion. (2) What choice of type-species would be indicated by usage?

" (1) In the original application it is stated that *pentadactylus* is the type-species of *Pterophorus* Geoffroy by designation by Curtis (1827). However, in *Bull.* **19:** 69 we read that Leach (1815) designated the same type-species earlier, while Latreille (1802–3) cited *didactylus* as type-species. Moreover, Cuvier (1798) cited ' a type ' for the ' complex ' of *Alucita* L. and *Pterophorus* Geoff. and ' put pentadactyla in this group '. Whether this should be read to mean that *pentadactyla* was cited as the type is not clear to me, nor for which of the two nominal genera the type must be considered to have been formally selected.[1] On page 69, also, it is stated that *didactylus* was subsequently cited as type-species of *Geina* Tutt, but lower down we read that *monodactylus* ' should be left as the type-species of *Geina* Tutt '.[2] Wallengren is said to have given *monodactylus* as a synonym of *pterodactylus* L., a name not otherwise referred to (and possibly a misprint). Contrary to Whalley, Bigot (although writing in support of him) states that most authors currently put *monodactylus* in the genus *Emmelina* (not *Geina*).

" (2) As regards usage, the views of Whalley and Bigot favouring *pentadactylus*, are diametrically opposed to those of Hering, favouring *monodactylus*.

" I do not see how the ordinary Commissioner can come to any conclusion on such conflicting submissions."

Dr. T. Jaczewski (24.ix.62). " I agree with the objection raised by Prof. E. M. Hering and I am of the opinion that the case requires careful reconsideration. I am supported here in this opinion by Prof. S. Adamczewski."

Prof. W. Kühnelt (23.x.62). " I should like to support the proposal of E. M. Hering to designate *monodactyla* Linnaeus as the type-species of *Pterophorus* Schäffer instead of *pentadactyla* Linnaeus."

In spite of the serious objections raised by Commissioners Mayr, Key, Jaczewski and Hering, it has been decided to accept the majority vote of the Commission, because the Secretary sees no other way of solving this rather urgent problem, where there has obviously been divergent use of a generic name among lepidopterists of different countries.

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[1] None of these earlier "designations" is in fact valid under the Code.

[2] This was a lapsus calami on the part of Mr. Whalley, *monodactylus* is type of *Emmelina*.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official Lists by the Ruling given in the present Opinion:

pentadactyla, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1:** 542
PTEROPHORIDAE Zeller, 1841, *Isis* (Jena): 755
Pterophorus Schäffer, 1766, *Elementa Entomologica:* Tab. 104, figs. 2, 3

The following is the original reference for the designation of a type-species for the genus concerned in the present Ruling:

For *Pterophorus* Schäffer, 1766: P. E. S. Whalley, 1961, *Bull. zool. Nomencl.* **18:** 159.

CERTIFICATE

I certify that the votes cast on Voting Paper (62)25 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 703.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
18 *October* 1963

AEOLIDIA CUVIER, 1797 (GASTROPODA): PROPOSED ADDITION TO THE OFFICIAL LIST. Z.N.(S.) 1097

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

The purpose of the present application is to place the generic name *Aeolidia* Cuvier on the Official List of Generic Names. The name has been misspelt many times but the correct spelling has become established in modern usage.

2. *Aeolidia* was published by Cuvier in 1797 (*Tabl. Elem. Hist. nat.* : 388) and included two species, *Doris fasciculata* and *Doris papillosa*. Alder and Hancock, 1847 (*Mon. brit. nud. Moll.* (3), Gen. 13 : 2) selected " *Eolis papillosa* ", i.e. *Limax papillosus* Linnaeus, 1761, as the type-species. Gray 1848 (*Proc. zool. Soc. Lond.* **15** : 166) selected the same species but as his paper was not read before the Society until November 9th, 1847 it seems certain that Alder & Hancock were the first to select the type-species.

3. Cuvier changed the spelling of the generic name in nearly every paper he later published—producing an enormous confusion. In 1800 (*Lécons Anat. comp.* **1** : 5th table at the end) the spelling was *Eolia*. In 1805 (*Ann. Mus. Hist. nat.*, Paris **6** : pl. 61) he wrote *Eolis*, and in 1816 changed to *Eolidia* (*Règne Anim.* **2** : 393). There is no doubt that these names were meant for the same genus, the currently accepted form of which is *Aeolidia*.

4. Still more incorrect spellings were introduced by later authors. *Eolida* Fleming, 1828 (*Hist. brit. Anim.* : 285) contained *L. papillosus* Linnaeus and three other Aeolidacea (as now defined). As there is no reference to Cuvier's work in Fleming, it may be formally more correct to treat the latter name as having a separate status, with the type-species, here designated, as *Limax papillosus* Linnaeus, 1761.

5. The spelling *Aeolis* was introduced by Menke, 1844 (*Z. Malakozool.* **1844** : 73) as the only linguistically correct way of spelling the name of that masculine God of the Wind. Cuvier, for unknown reasons, seems to have changed the sex of that God and all subsequent authors have treated the name *Aeolidia* as of the feminine gender.

6. The name *Aeolidia* has been used not only to form the family name AEOLIDIIDAE but also the modern and well-defined subordinal name Aeolidacea. The family-group name was first published as EOLIDIDAE by d'Orbigny, 1834 (*Moll. Ech. Foram. Pol. îles Canar.* : 34) and was corrected to AEOLIDIIDAE by Bergh, 1879 (Sci. Expl. Alaska **1,** *Proc. Acad. nat. Sci. Philad.* : 128). There have been several erroneous subsequent spellings of the family name and the Commission is asked to place these on the Official Index.

7. The International Commission on Zoological Nomenclature is therefore asked:

(1) to place the generic name *Aeolidia* Cuvier, 1797 (gender: feminine), type-species, by subsequent designation by Alder & Hancock (1847), *Limax papillosus* Linnaeus, 1761, on the Official List of Generic Names in Zoology;

Bull. zool. Nomencl., Vol. 21, Part 2. April 1964.

(2) to place the specific name *papillosus* Linnaeus, 1761, as published in the binomen *Limax papillosus* (type-species of *Aeolidia* Cuvier, 1797) on the Official List of Specific Names in Zoology;

(3) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:

   (a) the following erroneous subsequent spellings of *Aeolidia* Cuvier, 1797:

      (i) *Eolia* Cuvier, 1800;

      (ii) *Eolis* Cuvier, 1805;

      (iii) *Eolidia* Cuvier, 1816;

   (b) *Eolida* Fleming, 1828 (a junior objective synonym of *Aeolidia* Cuvier, 1797);

   (c) *Aeolis* Menke, 1844 (an invalid emendation of *Aeolidia* Cuvier, 1797);

(4) to place the family-group name AEOLIDIIDAE (correction by Bergh, 1879 of EOLIDIDAE) d'Orbigny, 1834 (type-genus *Aeolidia* Cuvier, 1797) on the Official List of Family-Group Names in Zoology;

(5) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:

   (a) EOLIDIDAE d'Orbigny, 1834 (type genus *Aeolidia* Cuvier, 1797) (an incorrect original spelling for AEOLIDIIDAE);

   (b) AEOLIDINA MacGillivray, 1843 (*Hist. Moll. Anim.* : 192) (type genus *Aeolidia* Cuvier, 1797) (an erroneous subsequent spelling for AEOLIDIIDAE);

   (c) EOLIDINA Gray, 1847 (*Proc. zool. Soc. Lond.* **15** : 166) (type genus *Aeolidia* Cuvier, 1797) (an erroneous subsequent spelling for AEOLIDIIDAE);

   (d) AEOLIDIDAE Bergh, 1870 (*in* Semper, *Reisen Arch. Philipp., Malac. Unters.* **1** : 1) (type genus *Aeolidia* Cuvier, 1797) (an erroneous subsequent spelling for AEOLIDIIDAE);

   (e) AEOLIDAE Locard, 1886, (*Prodr. Malac. Fr.* : 43) (type genus *Aeolidia* Cuvier, 1797) (an erroneous subsequent spelling for AEOLIDIIDAE);

   (f) AEOLIDIADAE Bergh, 1888 (*in* Semper, *Reisen Arch. Philipp., Malac. Unters.* **3** : 777) (type genus *Aeolidia* Cuvier, 1797) (an erroneous subsequent spelling for AEOLIDIIDAE).

AEOLIDIELLA BERGH, 1867, AND *CALMA* ALDER & HANCOCK, 1855 (GASTROPODA): TWO GENERIC NAMES PROPOSED FOR PROTECTION UNDER THE PLENARY POWERS. Z.N.(S.) 1098

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

The object of the present application is to preserve the generic names *Calma* Alder & Hancock, and *Aeolidiella* Bergh in their currently accepted sense by suppression under the plenary powers of the generic name *Eolidina* Quatrefages, 1843.

2. In 1843 Quatrefages (*Ann. Sci. nat.* (Zool.), Paris (2) **19** : 276) established a new genus *Eolidina* with the type-species, by monotypy, *Eolidina paradoxum* n. sp. (: 277). The identity of this species remained questionable for a very long time.

3. Alder & Hancock 1854 (*Ann. Mag. nat. Hist.* (2) **14** : 104) described a new species *Eolis glaucoides* which in 1855 (*Mon. brit. nud. Moll.* **7** app. : XXI) they made the type-species of their new genus *Calma*. This genus was very soon accepted and was characterized by the very conspicuous forestalks which carry the cerata on the back.

4. *Aeolidiella* Bergh, 1867 (*Vid. Medd. Dansk. Naturh. Foren.* **1866** : 99) is a name given to a genus which, in the original publication, included a number of species, the first of which, *Eolida soemmerringii* Leuckart, 1829 (*Breves Anim.* : 16) was subsequently designated as the type-species by Suter (1913, *Man. N.Z. Moll.* : 581). Suter, however, misspelt the specific name as *sommeringii* and this name should be placed on the Official Index.

5. For 80 years the name *Eolidina* Quatrefages was entirely out of use. Then, Iredale & O'Donoghue (1923, *Proc. Malac. Soc. Lond.* **15** : 201) applied it to the genus hitherto called *Aeolidiella* Bergh. Since then, more and more authors changed to *Eolidina* (Winckworth, 1932, *J. Conch.* **19** : 238; Baba, 1937, *J. Dept. Agr. Kyushu Imp. Univ.* **5** : 336; Pruvot-Fol, 1951, *Arch. Zool. exper. gén.* **88** : 2 (as Aeolidina) and 54; Pruvot-Fol, 1954, *Faune France* **58** : 428). When in 1951, Winckworth changed back to *Aeolidiella*, he stated that *Aeolidiella occidentalis* Bergh was the type-species of that genus. This, however, cannot be correct, as the genus *Aeolidiella* was clearly established in 1867 when several named species were included, among them *occidentalis* n. sp. which, however, was not described until 1874, thus being a *nomen nudum* when originally included in the genus *Aeolidiella*.

6. Most other authors have recently changed back again to the use of *Aeolidiella* following Odhner, 1939 (*K. Norske Vid. Selsk. Skr.* **1939,** 1 : 77). Odhner synonymized *Eolidina* with *Calma* Alder & Hancock, 1855, and gave strong supporting evidence for this synonymy. To me Odhner's statements are sufficient to show that it would be more convenient to stabilize nomenclature by suppressing *Eolidina* Quatrefages altogether. A transfer of this name to another group of Aeolidacea than that to which it has hitherto been applied would cause confusion without any gain. Under the circumstances described

by Odhner, however, it would be perhaps unwise to suppress the specific name of the type-species, *paradoxum* Quatrefages, which may possibly cover another species than those hitherto described.

7. There is in use a family-group name CALMIDAE Iredale and O'Donoghue 1923 (*Proc. malac. Soc. Lond.* **15** : 200), based upon *Calma* Alder & Hancock. In 1951, Pruvot-Fol, (*Arch. Zool. exper. gén.* **88** : 54) published the sub-family name EOLIDININAE (type-genus *Eolidina* Quatrefages) as a subfamily of AEOLIDIIDAE. This seems to be a superfluous name and will be invalid if the type-genus is suppressed under the plenary powers.

8. The International Commission on Zoological Nomenclature is therefore asked:

(1) to use its plenary powers to suppress the generic name *Eolidina* Quatrefages, 1843, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the following generic names on the Official List of Generic Names in Zoology:

  (a) *Calma* Alder & Hancock, 1855 (gender: feminine) type-species by original designation, *Eolis glaucoides* Alder & Hancock, 1854;

  (b) *Aeolidiella* Bergh, 1867 (gender: feminine) type-species, by subsequent designation by Suter, 1913, *Eolida soemmerringii* Leuckart, 1828;

(3) to place the following specific names on the Official List of Specific Names in Zoology:

  (a) *glaucoides* Alder & Hancock, 1854, as published in the binomen *Eolis glaucoides* (type-species of *Calma* Alder & Hancock, 1855);

  (b) *soemmerringii* Leuckart, 1828, as published in the binomen *Eolida soemmerringii* (type-species of *Aeolidiella* Bergh, 1867);

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:

  (a) *Eolidina* Quatrefages, 1843 (as suppressed under the plenary powers in (1) above);

  (b) *Aeolidina* Pruvot-Fol, 1951 (an incorrect spelling for *Eolidina* Quatrefages, 1843);

(5) to place the specific name *sommeringii* Suter, 1913, as published in the binomen *Aeolidiella sommeringii* (an incorrect spelling for *Eolida soemmerringii* Leuckart, 1828) on the Official Index of Rejected and Invalid Specific Names in Zoology;

(6) to place the family-group name CALMIDAE Iredale and O'Donoghue, 1923 (type-genus *Calma* Alder & Hancock, 1855) on the Official List of Family-Group Names in Zoology;

(7) to place the family-group name EOLIDININAE Pruvot-Fol, 1951 (type-genus *Eolidina* Quatrefages, 1843) (invalid because the name of the type-genus has been suppressed under the plenary powers) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

FLABELLINA VOIGT, 1834 (GASTROPODA): PROPOSED ADDITION TO THE OFFICIAL LIST OF GENERIC NAMES. Z.N.(S.) 1099

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

The object of the present application is to place the generic name *Flabellina* Voigt, 1834, on the Official List of Generic Names in Zoology. This generic name has, in general use, been dated from Cuvier, 1830. However, in the *Règne Anim.* (ed. 2) **3** : 55, Cuvier used the French vernacular names for his genera which he had used in ed. 1 in 1817, and in most cases added the latinized forms. In the case of the " Flabellines " the Latin name is omitted and thus the name remains invalid even though there is a definition and a type-species, *Doris affinis* Gmelin.

2. The first place in which the latinized form *Flabellina* appeared was in the German edition of Cuvier's work (Voigt, 1834, *Das Thierreich* **3** : 124) with the type-species, by monotypy, as before, *Doris affinis* Gmelin, 1791 (*Syst. Nat.* (ed. 13) **1** : 3105). It is now proposed that this name should be placed on the Official List.

3. D'Orbigny, 1839 (*in* Sagra, *Hist. nat. Ile Cuba*: 42) introduced the name *Flabellina* for a genus of foraminifera, but without included species. The following year, d'Orbigny (1840, *Mém. Soc. geol. Fr.* **4** : 23–25) cited three new species as belonging to the genus—*rugosa* (: 23, Pl. 2, figs. 4, 5, 7); *baudouiniana* (: 24, Pl. 2, figs. 8–11); and *pulchra* (: 25, Pl. 2, figs. 12–14). Of these, Cushman, 1927 (*Contr. Cushman Lab. foram. Res.* **3** : 189) selected *rugosa* as the type-species. The name *Flabellina* as thus defined, has until recently been in use.

4. In 1940, Cushman (*Foraminifera*: 201) included the genus *Flabellina* as a synonym of the older genus *Palmula* Lea, 1833 (*Contr. Geol.* : 219). In spite of this Bartenstein, 1948 (*Senckenbergiana* **28** : 122) introduced the name *Neoflabellina* as a replacement name for *Flabellina* d'Orbigny non Voigt. It will therefore be seen that the road has been cleared for using without disturbance the name *Flabellina* for the nudibranch genus for which it has priority. It is not here proposed that *Neoflabellina* be placed on the Official List as there seems to be doubt as to the validity of that genus.

5. The name *Flabellina* Forbes & Hanley, 1851, as mentioned in Neave's Nomenclator, is *Flabellina* Voigt and has no separate status. *Flabellina* Levinsen, 1902 (*Vid. Medd. Dansk. Naturh. Foren.*: 21) is an invalid emendation of *Flabellaris* Water, 1898, a Bryozoan. *Flabellina* de Gregorio (1930, *Ann. géol. Paléont. Palermo* **52** : 33) was applied to another Bryozoan. Clearly the last two generic names should now be placed on the Official Index.

6. The conditions under which the family-group names within most Aeolidacean nudibranchs have been established are such that a special Ruling on the whole problem may be required. In 1890, the experienced opisthobranch specialist R. Bergh ventured " ein gewagter Versuch " to arrange these animals systematically (*Zool. Jahrb.* (Syst.) **5** : 39). But this attempt was antedated by

a compilation by Carus (1889–1893, *Prodr. Fauna Medit.* 2) who, although without any experience himself with these animals, cited all of the same subfamily names as Bergh, adding behind each of the names the reference " Bgh.". Thus, it is beyond doubt that Carus intended to publish the names established by Bergh, and that he did so in 1889, the year before Bergh's paper was published. Therefore the Commission is asked to accept that the reference " Bgh." in the work of Carus indicated that the latter author was publishing in his work the subfamily names created by Bergh, and that the reference to author shall be cited as Bergh, 1889, in Carus.

7. There is a family name based on *Flabellina* Voigt, namely FLABELLINIDAE Bergh, 1889 (in Carus, *Prodr. Fauna Med.* **2** : 215 as FLABELLININAE). Thiele (1931, *Handb. Syst. Weichtierk.* **1** : 451) included the genus *Coryphella* Gray in this family, thereby placing the name CORYPHELLIDAE Bergh, 1889 (in Carus, loc. cit.: 211) as a subjective synonym of FLABELLINIDAE. Pruvot-Fol (1954, *Faune France* **58** : 413 and : 421 resp.) keeps these families as distinct. It appears therefore that both of these names should now be placed on the Official List, with a note that FLABELLINIDAE takes precedence over CORYPHELLIDAE in case of competition. The type-genus of CORYPHELLIDAE is *Coryphella* M. E. Gray, 1850 (*Figs. moll. Anim.* **4** : 109), type-species by subsequent designation by Alder & Hancock, 1855 (*Mon. brit. nud. Moll.* **7**, app.: XXII), *Eolis rufibranchialis* Johnston, 1832 (*Mag. nat. Hist.* **5** : 428). The specific name *rufibranchialis*, however, is not considered to be the oldest available name for the species concerned and ought not therefore to be placed on the Official List, but should be replaced by *Eolidia verrucosa* M. Sars, 1829 (*Bidr. Soedyr. Naturh.* : 9).

8. The Commission is therefore requested:

(1) to place the following generic names on the Official List of Generic Names in Zoology:
   (a) *Flabellina* Voigt, 1834 (gender: feminine), type-species, by monotypy, *Doris affinis* Gmelin, 1791;
   (b) *Coryphella* M. E. Gray, 1850 (gender: feminine), type-species, by designation by Alder & Hancock, 1855, *Eolis rufibranchialis* Johnston, 1832;

(2) to place the following specific names on the Official List of Specific Names in Zoology:
   (a) *affinis* Gmelin, 1791, as published in the binomen *Doris affinis* (type-species of *Flabellina* Voigt, 1834);
   (b) *verrucosa* M. Sars, 1829, as published in the binomen *Eolidia verrucosa;*

(3) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:
   (a) *Flabellina* d'Orbigny, 1839 (a junior homonym of *Flabellina* Voigt, 1834);
   (b) *Flabellina* Cuvier, 1830 (a cheironym);
   (c) *Flabellina* Levinsen, 1902 (an unjustified emendation of *Flabellaris* Waters, 1898);

(d) *Flabellina* de Gregorio, 1930 (a junior homonym of *Flabellina* Voigt, 1834);

(4) to place the following family-group names on the Official List of Family-Group Names in Zoology:

(a) FLABELLINIDAE Bergh, 1889, in Carus (type-genus *Flabellina* Voigt, 1834) (a name selected by Thiele (1931, *Handb. Syst. Weichtierk.* **1** : 451) as first reviser, in preference to CORYPHELLIDAE Bergh, 1889);

(b) CORYPHELLIDAE Bergh, 1889, in Carus (type-genus *Coryphella* M. E. Gray, 1850) (for use by those zoologists who consider CORYPHELLIDAE as a taxon distinct from FLABELLINIDAE Bergh, 1889).

EMBLETONIA ALDER & HANCOCK, 1851 (GASTROPODA): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1100

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

The present proposal is mainly concerned with the stabilization of the generic name *Embletonia* Alder & Hancock, 1851 (Class Gastropoda). Klug, 1805 (*Beitr. z. Naturk.* **1** : 143) described a genus of solitary wasps under the name *Pterocheilus*, including several species of which *Vespa phalerata* Panzer, [1797] (*Fauna Ins. Germ.* (47): 21) was chosen as the type by Blanchard, 1840 (*Hist. nat. Ins.* 3, Hymenopt.: 389) as *Pterochile phalaerata*, the spellings being invalid emendations of both generic and specific names. Illiger, 1807 (*Mag. f. Insektenk.* **6** : 196) spelled the generic name *Pterochilus*, which spelling has been gradually adopted so that it became generally accepted. Only in a recent publication did Muesebeck, Krombein & Townes (1951, *Hymenopt. Amer. N. Mexico* **2** : 904) change back to *Pterocheilus*. Illiger's name has no status in nomenclature if it is a simple misspelling, whereas if it is an emendation it has its own rights concerning authorship and date. No indication concerning Illiger's intentions is to be found in his paper.

2. In 1844 Alder & Hancock (*Ann. Mag. nat. Hist.* **14** : 329) introduced the name *Pterochilus* for a genus of Aeolid nudibranchs, the type-species being, by monotypy, *Pterochilus pulcher* Alder & Hancock, 1844. These authors later considered that *Pterochilus* was preoccupied by *Pterocheilus* Klug and replaced their own generic name by *Embletonia* Alder & Hancock, 1851 (*Mon. Brit. Nud. Moll.* (5): fam. 3, genus 14). The name *Embletonia* came into general use and has been consistently applied to that genus ever since. The present action is taken to ensure the continued use of *Embletonia* by suppression of *Pterochilus* Alder & Hancock under the plenary powers.

3. Verany (1854) (*J. Conchyliol.* **4** : 385) used the generic name *Diplocera* Blanchard with the type-species *Diplocera veranyi* and listed *Embletonia* as a synonym. He did not describe either genus or species and the only place in the *Ann. Sci. nat.* cited by Verany where I have been able to trace any mention of this name is in 1848 (*Ann. Sci. nat.*, Paris (3) **9** : 187) where a number of nudibranchs are listed by name only, amongst them *Diplocera veranyi*, which is therefore a nomen nudum both from Blanchard, 1848 and Verany (1854). These names should therefore be placed on the Official Index. The date of publication of Verany's paper seems almost certain to be 1854 since it was published in the last part of the band in question together with a letter dated " 2 decembre 1853 " (page 450). It would seem extremely unlikely, therefore, that publication should have taken place before the end of 1853.

4. The generic name *Embletonia* was made the basis of the family-group name EMBLETONIIDAE by Pruvot-Fol, 1954 (*Faune de France* **58** : 410). As this name is generally considered to be a junior synonym of TERGIPEDINAE Bergh (in Carus), 1889, I do not ask that it be placed on the Official List.

Bull. zool. Nomencl., Vol. 21, Part 2. April 1964.

5. The International Commission on Zoological Nomenclature is therefore asked:

(1) to use its plenary powers to suppress the generic name *Pterochilus* Alder & Hancock, 1844, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Embletonia* Alder & Hancock, 1851 (gender: feminine), type-species, by monotypy, *Pterochilus pulcher* Alder & Hancock, 1844, on the Official List of Generic Names in Zoology;

(3) to place the specific name *pulcher* Alder & Hancock, 1844, as published in the binomen *Pterochilus pulcher* (type-species of *Embletonia* Alder & Hancock, 1851) on the Official List of Specific Names in Zoology;

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:

  (a) *Pterochilus* Alder & Hancock, 1844 (as suppressed under the plenary powers in (1) above);

  (b) *Diplocera* Blanchard, 1848 (a nomen nudum);

(5) to place the specific name *veranyi* Blanchard, 1848, as published in the binomen *Diplocera veranyi* (a nomen nudum) on the Official Index of Rejected and Invalid Specific Names in Zoology.

NAMES OF NUDIBRANCH GASTROPOD GENERA PROPOSED FOR THE OFFICIAL LIST. Z.N.(S.) 1108

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

When most of the names of the more important genera of Northern Atlantic Aeolidacean Nudibranchs are stablized by the proposals already placed before the Commission, it seems reasonable to use the opportunity to place the names of the remaining well-known genera on the Official List. These names are dealt with individually below.

2. *Cumanotus* Odhner, 1907 (*K. svensk. Vetensk. -Akad. Handl.* **41** (4) : 26, 29, 101, text figs. 2–4) was established for the new species *Cumanotus laticeps* Odhner, 1907, which in the next few years was found to be identical with *Coryphella beaumonti* Eliot, 1906 (*J. mar. biol. Assoc. U.K.* **7** : 361). (See also Eliot, 1908, *op. cit.* **8** : 313, and Odhner, 1910, *op. cit.* **10** : 82). No problems have been found to exist concerning this generic name.

3. The genus *Cuthonella* Bergh, 1884 (*Rep. Voy.* "*Challenger*" (Zool.) **26** : 23) was established for the new species *abyssicola* Bergh, 1884 (*op. cit.* : 24, pl. 10 figs. 1–3 pl. 11 fig. 2, pl. 12 figs. 9–13) which is therefore the type by monotypy. No problems exist in the nomenclature of this genus.

4. *Favorinus* Gray, 1850, (*Figs. Moll. Anim.* **4** : 109) was established with *Eolis alba* Alder & Hancock, 1844 (*Ann. Mag. nat. Hist.* **13** : 164) as the type by monotypy. *Eolis alba* being preoccupied by *Eolis alba* Van Hasselt, 1824 (*Alg. Konst. Letter-Bode* : 23) the name of Alder & Hancock's species was changed by Iredale & O'Donoghue to *albidus* (1923, *Proc. malac. Soc. Lond.* **15** : 205). The species is now generally held to be the same as *Doris branchialis* Rathke, 1806 (*in.* O. F. Müller, *Zool. Dan.* (ed. 3) **4** : 33, Tab. 149, figs. 5–7) which is the name now proposed for addition to the Official List.

5. *Precuthona* Odhner, 1929 (*Tromsö Mus. Årsh.* **50** (1) : 16) was established with *Eolis peachii* Alder & Hancock, 1848 (*Ann. Mag. nat. Hist.* (2) **1** : 191) as the type by monotypy. No problems are involved in this case.

6. The only family-group name based on a genus here proposed for addition to the Official List is FAVORININAE at present in use as a subfamily name and first proposed in that form by Bergh, in Carus, 1889 (*Prodr. Faun. Medit.* **2** : 212). This name should be placed on the Official List.

7. The International Commission is therefore asked:

(1) to place the following generic names on the Official List of Generic Names in Zoology:
  - (a) *Cumanotus* Odhner, 1907 (gender: masculine), type-species, by monotypy, *Cumanotus laticeps* Odhner, 1907;
  - (b) *Cuthonella* Bergh, 1884 (gender: feminine), type-species, by monotypy, *Cuthonella abyssicola* Bergh, 1884;
  - (c) *Favorinus* Gray, 1850 (gender: masculine), type-species, by monotypy, *Eolis alba* Alder & Hancock, 1844;

   (d) *Precuthona* Odhner, 1929 (gender: feminine), type-species, by monotypy, *Eolis peachii* Alder & Hancock, 1848;

(2) to place the following specific names on the Official List of Specific Names in Zoology:

   (a) *beaumonti* Eliot, 1906, as published in the binomen *Coryphella beaumonti*;

   (b) *abyssicola* Bergh, 1884, as published in the binomen *Cuthonella abyssicola* (type-species of *Cuthonella* Bergh, 1884);

   (c) *branchialis* Rathke, 1806, as published in the binomen *Doris branchialis*;

   (d) *peachii* Alder & Hancock, 1848, as published in the binomen *Eolis peachii* (type-species of *Precuthona* Odhner, 1929);

(3) to place the specific name *alba* Alder & Hancock, 1844, as published in the binomen *Eolis alba* (a junior primary homonym of *Eolis alba* Van Hasselt, 1824) on the Official Index of Rejected and Invalid Specific Names in Zoology;

(4) to place the family-group name FAVORININAE Bergh, in Carus, 1889 (type-genus *Favorinus* Gray, 1859) on the Official List of Family-Group Names in Zoology.

YOLDIA MÖLLER, 1842, and *PORTLANDIA* MÖRCH, 1857: PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS WITH REJECTION OF *YOLDIA ARCTICA* MÖLLER, 1842. Z.N.(S.) 1522

By T. Soot-Ryen (*Zoologisk Museum, Oslo, Norway*)

There has been and still is some confusion about the two genera *Yoldia* Möller, 1842, and *Portlandia* Mörch, 1857. Both were in fact established on species which were given incorrect names though the description or cited synonyms clearly indicate the characters of these genera. It is therefore necessary to put the question of the type-species before the Commission and to obtain a final settlement.

1. Gray (1824) described two species viz. *Nucula arctica* (p. 241) and *Arca glacialis* (p. 244), both from Prince Regents Inlet. The descriptions are clear and these two species are today known as *Portlandia arctica* (Gray) and *Bathyarca glacialis* (Gray). Much confusion has arisen as Wood (1828) unfortunately figured *Nucula arctica* Gray under the name *Arca glacialis* (Pl. 2, fig. 6). The last name was used by Mörch (1857) and even by Gray himself (1851) as *Yoldia glacialis*. In the British Museum there are two valves named " *N. glacialis* Gray, and *M. truncata* Brown ", which are *P. arctica* (Gray). In the meantime other names had been given to *N. arctica* viz. *N. truncata* Brown, 1827; *N. portlandica* Hitchcock, 1837; *N. siliqua* Reeve, 1855.

2. As *Nucula arctica* Gray has been considered to be the type-species both of the genus *Yoldia* Möller, 1842, and of the subgenus *Portlandia* Mörch, 1857, there are several difficulties relating to the type designations. It seems advisable to start with the youngest genus.

3. Mörch (1857, p. 93) lists under Gen. 81 *Nuculana* Link, Sbg. *Portlandia* aut.? However, there seems to be no earlier reference to this name in print. It must therefore be dated from 1857 as of Mörch. The subgenus is monotypic as Mörch mentions one species only with three synonyms in the following way:

Sbg. *Portlandia* aut?

188. *N. glacialis* (*Arca*) Gray. Parry. • Voy. Wood Supp. t. 6.
Yoldia Portlandica Woodward non Hitsch.
Nucula truncata Brown. Ill. XXV. f. 19.
Yoldia glacialis Gray. Cat. Brit. Moll. p. 161.

N. glacialis (*Arca*) Gray is used according to the reference to Wood, t. 6 (=*Nucula arctica* Gray). The three synonyms listed below all refer to the same species. The species is not misidentified by Mörch, but the wrong use of the name dates from Wood (1828).

The taxon *Portlandia* Mörch, 1857, has at least in Northern Europe, been used with *Nucula arctica* Gray as type-species for more than a half century.

4. H. P. C. Möller in his " Index Molluscorum Groenlandiae ", Hafniae 1842, established the genus *Yoldia* on p. 18. He mentions two species: *Y. arctica* and *Y. angularis* nob. Apparently Möller thought that his first species was identical with *Nucula arctica* Gray, as this name was added between

commas after the name *Y. arctica*. However, the diagnosis of the genus and the description of the species clearly show that the reference to *Nucula arctica* Gray is erroneous. Therefore Möller's *Yoldia arctica* is a species distinctly different from Gray's *Nucula arctica*. *Y. angularis* Möller is a synonym of *Nucula thraciaeformis* Storer, 1838, which is the type–species of gen. *Megayoldia* Verrill and Bush, 1897.

5. Torell (1859, pp. 145–152) discussed this nomenclatural problem and introduced the specific name *Yoldia hyperborea* for *Y. arctica* Möller non Gray. The name *Y. hyperborea* was first mentioned by Gould (1841, p. 99) as a manuscript name of a shell from Spitsbergen sent to him by Lovén. The name was here a nomen nudum. A full diagnosis and figures are given by Torell (1859, p. 149, Tab. 2, figs. 6a, b). The correct name of this species must therefore be *Yoldia hyperborea* Torell, 1859.

6. The earlier designations of the type-species for gen. *Yoldia* have been discussed by Grant and Gale (1931, p. 127). Stoliczka (1871) designated *Y. lanceolata* Sow. as type though this species was not mentioned by Möller. Verrill and Bush (1897) say: " Type *Y. hyperborea* Torell " and Dall (1898) assumed that Torell's species probably was equivalent to *Y. arctica* Gray of Möller and designated *hyperborea* as type-species. As the wording of the earlier designations has been more or less incorrect I made a new designation (1959, p. 14).

7. To prevent a revival of the specific name *Yoldia arctica* Möller, 1842, which would cause still more confusion, it should be placed on the Official Index of Rejected and Invalid Names in Zoology.

8. The originally erroneous use of the names of the type-species of the genera *Yoldia* Möller, 1842, and *Portlandia* Mörch, 1857, makes it necessary to obtain a final decision. Therefore the International Commission on Zoological Nomenclature is asked:

- (1) to use its plenary powers:
    - (a) to set aside all designations of type-species for the nominal genus *Portlandia* Mörch, 1857, made prior to the Ruling now requested and to designate the nominal species *Nucula arctica* Gray, 1824, to be the type-species of that genus;
    - (b) to set aside all designations of type-species for the nominal genus *Yoldia* Möller, 1842, made prior to the Ruling now requested and, having done so to designate the nominal species *Yoldia hyperborea* Torell, 1859, to be the type of that genus;
- (2) to place the following generic names on the Official List of Generic Names in Zoology:
    - (a) *Portlandia* Mörch, 1857 (gender: feminine), type-species, by designation under the plenary powers in (1) (a) above, *Nucula arctica* Gray, 1824;
    - (b) *Yoldia* Möller, 1842 (gender: feminine), type-species, by designation under the plenary powers in (1) (b) above, *Yoldia hyperborea* Torell, 1859;
- (3) to place the following specific names on the Official List of Specific Names in Zoology:

(a) *arctica* Gray, 1824, as published in the binomen *Nucula arctica* (type-species of *Portlandia* Mörch, 1857);

(b) *hyperborea* Torell, 1859, as published in the binomen *Yoldia hyperborea* (type-species of *Yoldia* Möller, 1842);

(4) to place the specific name *arctica* Möller, 1842, as published in the binomen *Yoldia arctica* (not a new name but a misidentification of *Nucula arctica* Gray, 1824) on the Official Index of Rejected and Invalid Generic Names in Zoology.

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STENOSCISMA CONRAD, 1839 (BRACHIOPODA): PROPOSED ADDITION TO THE OFFICIAL LIST WITH *TEREBRATULA SCHLOTHEIMII* VON BUCH, [1834], AS TYPE-SPECIES. Z.N.(S.) 1539

By Herta Schmidt (*Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt a. M., Germany*)

The object of the present application is to conserve the generic name *Stenoscisma* Conrad, 1839, in its present usage. The Ruling on this case will also have consequences for the validity of the generic names *Camerophoria* King, 1846, and *Machaeraria* Cooper, 1955.

Historical Survey

2. In 1839, Conrad introduced the nominal genus *Stenoscisma* referring to this genus only one species, " the common silurian Bivalve *Terebratula schlotheimii* von Buch ", which therefore is the type-species by monotypy.

3. King, 1946, established the genus *Camerophoria*, designating as type-species *Terebratula schlotheimi* von Buch.

4. Hall, 1847, used Conrad's name, spelling it " *Stenocisma* ". He included in the genus the nominal species *Atrypa deflecta*, *A. recurvirostra*, *A. exigua* and *A. modesta.*

5. Hall, 1862, proposed the generic name *Zygospira*, with *modesta* as type-species, for the four species mentioned above.

6. Hall, 1867, stated that Conrad's designation of *T. schlotheimii* was based on a misidentification and that what Conrad considered as *T. schlotheimii* actually was *Rhynchonella formosa* Hall, 1857. Hall " revived " the name *Stenocisma* [sic] Conrad with *Rhynchonella formosa* as type-species.

7. Dall, 1877, in opposition to Hall, argued for *Terebratula schlotheimii* von Buch as type-species of *Stenoscisma.* Also Oehlert, 1887, cited " *Stenoschisma* Conrad, em. 1839 (*Stenocisma*) " with the type-species *T. schlotheimi* von Buch and, consequently, considered *Camerophoria* King, 1846, as a junior objective synonym of *Stenoschisma* [sic] Conrad. He mentioned " *Stenocisma* Hall 1867 (non 1847, nec Conrad, 1839) " as a synonym of *Rhynchonella.*

8. Schuchert, 1897, while interpreting the genus in the sense of Hall, 1867, used the spelling " *Stenochisma* ".

9. During the next decades the interpretation of Hall, 1867, predominated. Consequently, the usage of *Camerophoria* for the genus typified by *T. schlotheimii* exceeded that of *Stenoscisma.*

10. The International Rules of Zoological Nomenclature of 1905 did not include regulations concerning misidentified type-species. Opinions 65 and 168 of the International Commission directed that, " in absence of evidence to the contrary, it is to be assumed that the original author of a genus correctly identified the species assigned by him thereto . . . but that, where there is evidence that either or both of these assumptions is at variance with the facts, the case should be submitted with full details to the ICZN . . . "

11. In the literature of the last twenty years the conception of *Stenoscisma* with *T. schlotheimii* as type-species and *Camerophoria* as a junior objective synonym has been more and more accepted (for instance H. Schmidt, 1941; A. Cooper, 1942; P. E. Cloud, 1944; Branson, 1948; R. C. Moore, 1952; H. Muir-Wood, 1956; Rshonsnitskaya, 1956). The family-group name CAMEROPHORIINAE Waagen, 1883, has been replaced by STENOSCISMATINAE Oehlert, 1887 (nom. correct., Muir-Wood, 1955 : 91; pro STENOSCHISMATINAE Oehlert, 1887 : 1304, et pro STENOSCHISMINAE Oehlert, 1887 : 1365 [laps. cal.]).

12. It was in harmony with this nearly generally accepted interpretation that A. Cooper, 1955, established the genus *Machaeraria* with *formosa* Hall as its type-species, the species designated by Hall, 1867, as type-species of *Stenoscisma* Conrad. Under the view accepted now, *formosa* Hall was till then without a generic name.

13. Rshonsnitskaya, 1960, while agreeing with Oehlert and later authors in the interpretation of *Stenoscisma*, cites as a valid name *Stenocisma* Hall, 1867, with the type-species *formosa* Hall. She consequently mentions *Machaeraria* Cooper, 1955, as a junior objective synonym.

Discussion

14. Evidently the specimens determined as *Terebratula schlotheimii* by Conrad are not identical with von Buch's species. It is open to doubt whether Conrad's determination was an erroneous one or may be considered as a conception of *T. schlotheimii* in a wider sense. In any case, the conclusions concerning nomenclature diverged during many years, while nearly all present authors have been using *Stenoscisma* with *Terebratula schlotheimii* as type-species. Additional confusion was caused by various spellings: *Stenoscisma* Conrad, 1839; *Stenocisma* Hall, 1847; *Stenoschisma* Oehlert, 1887; *Stenochisma* Schuchert, 1897. As Hall, Oehlert, and Schuchert explicitly refer to Conrad's genus all these subsequent spellings are unjustified emendations, and, as such, they are junior objective synonyms of *Stenoscisma* Conrad. Therefore it is not admissible to recognise *Stenocisma* Hall, 1867, as a valid generic name, independent of *Stenoscisma* Conrad, as did Rshonsnitskaya, 1960. Neither the unjustified emendation of the original name, nor the substitution of a new type-species, *formosa* Hall, can found a new nominal genus (apart from the fact that the emendation *Stenocisma* Hall dates from 1847, and that *Stenocisma* Hall, 1867, if intended as a new generic name, would be its junior homonym).

Conclusions

15. Considering the fact that the generic name *Stenoscisma* is now generally used for the genus typified by *Terebratula schlotheimii* von Buch, and that the name, in this sense, has also been accepted by bibliographic indices and textbooks, it seems suitable to conserve this usage. The International Commission on Zoological Nomenclature is therefore asked:

(1) to place the following generic names on the Official List of Generic Names in Zoology:

(a) *Stenoscisma* Conrad, 1839 (: 59) (gender : neuter), type-species, by monotypy, *Terebratula schlotheimii* von Buch, [1834];

(b) *Machaeraria* Cooper, 1955 (: 55) (gender: feminine), type-species, by original designation, *Rhynchonella formosa* Hall, 1857;

(2) to place the following specific names on the Official List of Specific Names in Zoology:

(a) *schlotheimii* von Buch, [1834] (: 59), as published in the binomen *Terebratula schlotheimii* (type-species of *Stenoscisma* Conrad, 1839);

(b) *formosa* Hall, 1857 (: 76), as published in the binomen *Rhynchonella formosa* (type-species of *Machaeraria* Cooper, 1955);

(3) to place the family-group name STENOSCISMATINAE (correction of STENOSCHISMATINAE) Oehlert, 1887 (: 1304) (type-genus *Stenoscisma* Conrad, 1839) on the Official List of Family-Group Names in Zoology;

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:

(a) *Stenocisma* Hall, 1847 (: 142), an unjustified emendation of *Stenoscisma* Conrad, 1839;

(b) *Stenoschisma* Oehlert, 1887 (: 1309), an unjustified emendation of *Stenoscisma* Conrad, 1839;

(c) *Stenochisma* Schuchert, 1897 (: 413), an unjustified emendation of *Stenoscisma* Conrad, 1839;

(d) *Camerophoria* King, 1846 (: 89–91), a junior objective synonym of *Stenoscisma* Conrad, 1839;

(e) *Camarophoria* Herrmannsen, 1846 (: 161), an unjustified emendation of *Camerophoria* King, 1846;

(5) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:

(a) CAMEROPHORIINAE Waagen, 1883 (: 435) (type-genus *Camerophoria* King, 1846), rejected before 1961 because the name of the type-genus is a junior objective synonym of *Stenoscisma* Conrad, 1839;

(b) STENOSCHISMATINAE Oehlert, 1887 (: 1304) (type-genus *Stenoscisma* Conrad, 1839), an incorrect original spelling for STENOSCISMATINAE.

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CARDINALIS BONAPARTE, 1838 (AVES); PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1608

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The name " cardinals " is applied to a group of genera of finches, which were raised to subfamily status by Sushkin (1925, *Auk.* **42** : 260) under the name Cardinalinae. Subsequent researches by Beecher (1953, *Auk.* **70** : 270–333) and by Tordoff (1954, *Auk.* **71** : 273–284) have confirmed the distinctness of this group; it is an important subfamily of birds to which also belong such well known genera as *Pheucticus*, *Guiraca*, and *Passerina*.

A problem has arisen as to the correct name of the type genus of this important subfamily. Since reference to this genus in the ornithological literature is made hundreds of times annually, the Commission is asked for a decision that will restore uniformity and universality in the use of this important name.

1. The type genus of this subfamily, formerly long known under the name *Cardinalis*, is based on *Loxia cardinalis* Linnaeus, 1758, an American bird well known under the vernacular name Cardinal. The names *Richmondena* and *Pyrrhuloxia* have prevailingly been used for this genus in recent years.

The history of these names is as follows:

2. Brisson (1760, **3** : 42) was apparently the first to use the name *Cardinalis*. The first species listed by him under this heading, " Le Cardinal," is the Scarlet Tanager of northeastern North America, now known as *Piranga olivacea* Gmelin 1789, a member of the family Thraupidae (Tanagridae) or Tanagers.

The name *Cardinalis* in the sense of Brisson has apparently never been used by a subsequent author except possibly by Jarocki (see below). It is not included as the name of a genus in the index of the work of Brisson (*ibid.*, p. 1112), and *Cardinalis* Brisson has recently been rejected by action of the International Commission (Direction 105).

3. Jarocki (1821, *Zoologiia* **2** : 133) published (in Polish) a list of genera of birds, in which he assigns the Scarlet Tanager of northeastern North America to the genus *Cardinalis*, apparently on the authority of Brisson. This name *Cardinalis* (as credited to Jarocki), was a dead-born synonym of *Piranga* Vieillot 1807 (Type, *Fringilla rubra* L. 1758) at the time of its publication. It was never used by a subsequent author as a generic name for a tanager and was apparently not even cited in synonymy of *Piranga* during the next 97 years.

The Jarocki publication seems to be exceedingly rare. We have been unable to trace a single copy in the United States and the volume is not even in the library of the British Museum.

4. Bonaparte (1838, *Proc. zool. Soc. London* (1837, : 111) was the first to use the generic name *Cardinalis* for the American bird well known by the vernacular name " Cardinal," originally described as *Loxia cardinalis* Linnaeus 1758 (*Syst. Nat.* (ed. 10) **1** : 172), based on the pre-Linnaean name *Coccothraustes rubra* of Catesby.

Bull. zool. Nomencl., Vol. 21, Part 2. April 1964.

5. The generic name *Cardinalis* Bonaparte was used in this sense for 80 years. It appears in all standard ornithological works of that period in America as well as Europe, such as Baird, 1858, *Birds of North America* : 509; Coues, 1872, *Key to North American Birds* : 151; Baird, Brewer and Ridgway, 1874, *History North American Birds* **2** : 100; Salvin and Godman, 1884, *Biologia Centrali Americana*, Aves : 340; Sharpe, 1888, *Catalogue of Birds in the British Museum* **12** : 160; Ridway, 1901, *Birds North and Middle America*, Bull. U.S. Nat. Mus. **50** (1) : 674.

6. In 1918 Mathews and Iredale (*Austral. Avian Rec.* **3** : 144) called attention to the earlier name *Cardinalis* of Jarocki (1821). Instead of requesting the International Commission to apply its plenary powers, sanctioned in 1913 by the Monaco Congress, to suppress the long forgotten and dead-born name *Cardinalis* Jarocki, Mathews and Iredale suppressed *Cardinalis* Bonaparte 1838 as a homonym of *Cardinalis* Jarocki 1821 and proposed a substitute name *Richmondena* for the North American Cardinal (= *Cardinalis* Bonaparte).

7. The name *Richmondena* has been widely adopted since the 1920's and has been used, until recently, almost universally in the American ornithological literature. It was adopted in the last two editions (1931, 1957) of the *Check-List of the American Ornithologists' Union*; by Hellmayr in his Catalogue of the Birds of the Americas, part XI (1938), *Field Mus. Nat. Hist.*, Zool. Ser. **13** : 67; by Pinto, 1944, in the *Cat. Av. Bras.* (2) : 588, and by the *Zool. Record.*

8. Regrettable though the change from the previously used name *Cardinalis* to *Richmondena* was in the beginning (and *Cardinalis* is still used by many non-American ornithologists), the name *Richmondena* has been used so widely in the last three decades that it would seem legitimate to consider it firmly established by usage. However, it now appears that the genus is threatened by still another name change, which is the reason for the present application.

9. It has become apparent in recent years that the Mexican Cardinal or Pyrrhuloxia, described by Bonaparte in 1838 as *Cardinalis sinuatus* (*Proc. zool. Soc., London*, **1837** : 111) is not separable generically from the North American Cardinal, "*Richmondena*" *cardinalis.* The genus *Pyrrhuloxia* created by Bonaparte in 1851 (*Consp. Gen. Av.*, **1** (2) (1850) : 500) for *Cardinalis sinuatus* has 68 years of priority over *Richmondena.*

10. Mayr and Amadon in 1951 (*Amer. Mus. Novit.*, No. 1476 : 27), accepting the congeneric status of *Loxia cardinalis* Linnaeus and *Cardinalis sinuatus* Bonaparte, adopted the name Pyrrhuloxiinae for the subfamily of cardinals, based on the oldest valid name of the type genus of Sushkin's Cardinalinae, in line with the provisions of Article 5 of the International Code, as valid in 1951, but in conflict with Article 40 of the new Code (1961).

11. As a consequence of the developments stated under (6–10) there is now lack of universality in the name used by authors for this genus. The American literature of the period 1930–1960 employs *Richmondena* almost universally, the classical literature and some recent authors use *Cardinalis*, while some students (indeed an increasing number of them) use *Pyrrhuloxia*, for the zoological reasons set forth in the Appendix. The eventual abandonment of the name *Richmondena* for the stated zoological reasons appears probable.

12. It would appear advisable to use the new period of instability as an

opportunity to return to the well known name *Cardinalis*, rather than to shift to the little known name *Pyrrhuloxia*. As the most satisfactory method to restore stability and universality it is herewith proposed to suppress the name *Cardinalis* Jarocki and place *Cardinalis* Bonaparte 1838 on the Official List of Generic Names in Zoology.

13. Such action has several advantages.

(a) It restores to the taxon the traditional scientific name *Cardinalis*, a name used throughout the classical literature and easily remembered, since it agrees with the vernacular name of the group. Thirteen of the 17 now recognized species and subspecies of this genus (*sensu lato*) were originally described under the name *Cardinalis*.

(b) It avoids a possible incongruity between a subfamily name Richmondeninae (if Article 40 is applied retroactively) and the name *Pyrrhuloxia* of its type genus.

(c) Since the name *Cardinalis* Bonaparte 1838 is older than either *Pyrrhuloxia* 1850 or *Richmondena* 1918, its stability is not affected by the current zoological argument on the generic separability of the type species (*sinuatus* and *cardinalis*) of these two taxa.

(d) The word *Pyrrhuloxia* has become the vernacular name of a particular species, the Pyrrhuloxia (=*sinuatus*). It would be confusing to call all cardinals *Pyrrhuloxia*. The name cardinal is also used for several Neotropical species, not only the North American cardinal.

(e) *Cardinalis* is the name still used in part of the non-American literature and recommended with a 3 to 1 vote by the Standing Committee on Ornithological Nomenclature of the International Ornithological Congress (F. Salomonsen, Copenhagen; G. C. A. Junge, Leiden; E. Stresemann, Berlin; with A. H. Miller, Berkeley, dissenting) (1960, *Proc. XII Intern. Orn. Congress* **1** : 35–37).

There is no danger of confusion since the name *Cardinalis* has not been used in the past 140 years for (and has never been the valid name of)any group of birds, except the cardinals. Nor will the restoration of the name *Cardinalis* be responsible for the abandonment of the now widely used name *Richmondena*, since the validity of this name is threatened for purely zoological reasons (as a subjective junior synonym of *Pyrrhuloxia*).

14. It is evident from the past history of the names *Cardinalis* and *Richmondena*, and from the zoological disagreement as to the generic distinctness of *Richmondena* and *Pyrrhuloxia*, that no nomenclatural solution can be found that will be equally acceptable to all ornithologists. Some ornithologists will be disappointed regardless of the decision that the International Commission will make. It is our belief, however, that the proposal here made will have the greatest potential, in the long run, to re-establish a stable nomenclature of the cardinals.

15. The International Commission on Zoological Nomenclature is therefore asked:

(1) to use its plenary powers to suppress the generic name *Cardinalis* Jarocki 1821, for the purposes of both the Law of Priority and the Law of Homonymy;

(2) to place the generic name *Cardinalis* Bonaparte, 1838 (gender: masculine), type-species, by designation by Gray, 1840, *Loxia cardinalis* Linnaeus, 1758, on the Official List of Generic Names in Zoology;

(3) to place the generic name *Cardinalis* Jarocki, 1821 (as suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Generic Names in Zoology;

(4) to place the following specific names on the Official List of Specific Names in Zoology:

(a) *cardinalis* Linnaeus, 1758, as published in the binomen *Loxia cardinalis* (type-species of *Cardinalis* Bonaparte, 1838);

(b) *sinuatus* Bonaparte, 1838, as published in the binomen *Cardinalis sinuatus*);

(5) to place the subfamily name CARDINALINAE Sushkin, 1925 (type-genus *Cardinalis* Bonaparte, 1838) on the Official List of Family-Group Names in Zoology.

Appendix

The separation of *Pyrrhuloxia* from *Cardinalis* Bonaparte (=*Richmondena* Mathews and Iredale) was based primarily on a difference in the shape of the bill of the two type species. In recent years, however, it has been realized how plastic a structure the bill is in birds. More and more cases are discovered of exceedingly closely related species which differ strikingly in the form of the bill. Differences in the bill are therefore not decisive as proof of generic distinctness unless supported by other more trenchant characters. The significance of the difference between the two species is further reduced by the fact that there is a third species (" *Cardinalis* " *phoenicae*) in which bill and crest are intermediate between those of the species *cardinalis* and *sinuatus*.

There are no other significant differences between these type species of *Pyrrhuloxia* and *Richmondena*; indeed all recent studies indicate their extraordinary similarity. The most recent analysis of the biology of the two species (Gould, 1961, *Condor*, **63** : 246–256) comes to the conclusion that they are " basically very similar " in all aspects of their life history. " Their songs are homologous and at times they are indistinguishable." " The nesting cycle and habits are almost identical." " Differences in ecology which cause a different geographic distribution of the two species are not evident on the study area, where they both occur and utilize the same environment in the same way." " The considerable similarity between the two species (*cardinalis* and *sinuatus*) in life history supports the hypothesis that they are congeneric."

To separate a monotypic genus *Pyrrhuloxia* from a genus with two species (" *Richmondena* "), when all three species of this group are exceedingly similar, and one of the three species intermediate between the other two, is in clear conflict with the best principles of classification. An increasing number of recent authors have drawn the consequences from these findings and have combined *Pyrrhuloxia* and " *Richmondena*," (for instance, Brodkorb in the handbook: The Vertebrates of the United States, 1957, Blair *et al.*, p. 586).

PROPOSED USE OF THE PLENARY POWERS (A) TO DESIGNATE A TYPE-SPECIES FOR THE GENERA *PSEUDOSQUILLA* DANA, 1852, AND *GONODACTYLUS* BERTHOLD, 1827, AND (B) FOR THE SUPPRESSION OF THE GENERIC NAME *SMERDIS* LEACH, 1817 (CRUSTACEA, STOMATOPODA). Z.N.(S.) 1609

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A recent revision of the genera of Stomatopoda brought to light that a strict application of the International Code of Zoological Nomenclature in three instances would lead to serious confusion. The three genera involved are *Pseudosquilla* Dana, 1852, *Gonodactylus* Berthold, 1827, and *Smerdis* Leach, 1817. In order to legalize the currently accepted names in their currently accepted sense, the Commission is asked here to make use of their plenary powers in these three cases. This opportunity is taken also to place the names of three other genera of Stomatopoda on the Official List of Generic Names in Zoology. All three of these names were published more than 60 years ago; as far as we can determine they are the oldest available names for the taxa to which they have been given and are not preoccupied by older homonyms.

2. The generic name *Pseudosquilla* Dana, 1852, has been used until very recently for a rather heterogenous group of Stomatopoda. It was Serène (1962, *Bull. Inst. océanogr. Monaco* 1241 : 1–27) who first separated this group into a number of more homogeneous components. Serène considered " Guérin, in Eydoux et Souleyet 1841 " to be the author of the generic name *Pseudosquilla* and he indicated as the type of that genus *Squilla ciliata* Fabricius, 1787. Serène, however, was mistaken as in Eydoux & Souleyet's (1841, *Voy. autour du monde La Bonite* (Zool.) **1** (2) : 263) paper the genus was only indicated with the vernacular French name " Pseudosquille ". The first use of the latin name *Pseudosquilla* was by Dana (1852, *U.S. Explor. Exped.* **13** : 621), who placed in this genus the two species *Squilla lessonii* Guérin, 1830, and *Squilla stylifera* Lamarck, 1818, without indicating a type. The first type selection for Dana's genus that we know of is by Rathbun (1926, *Bull. U.S. nat. Mus.* **138 :** 137), who selected as such *Squilla lessonii* Guérin, 1830; this selection is entirely valid. In Sèrene's new classification the two species *Squilla lessonii* Guérin, and *Squilla stylifera* Lamarck, 1818 (the latter being a subjective junior synonym of *Squilla ciliata* Fabricius, 1787) are placed in different genera, which for convenience sake are indicated here as genus A and genus B respectively. It is to genus B that Serène (1962) gave the name *Pseudosquilla*, while according to the Code this name should be used for genus A. Genus A is relatively poorly known and contains three species, all of which are rare and seldom reported

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upon in the literature. Genus B constitutes by far the best known group of the old undivided genus *Pseudosquilla*, with 6 species, some of which are very common, with a wide distribution and repeatedly dealt with in the literature. Serène (1962) gave the new name *Pseudosquillopsis* to genus A, which actually should be known as *Pseudosquilla*. The latter name was used by Serène for genus B. For this genus two other names are available, viz., *Alimerichthus* Guérin (1855, *in* R. de la Sagra, *Hist. fis. polit. nat. Cuba* (8), (Atlas), Articulata, pl. 3, fig. 12) (type-species, by monotypy: *Alimerichthus cylindricus* Guérin, 1855, *in* R. de la Sagra, *His. fis. polit. nat. Cuba* (8), (Atlas), Articulata, pl. 3, fig. 12), and *Pseuderichthus* Brooks (1886, *Johns Hopk. Univ. Circ.* **5** (49) : 83), a genus originally described without any included nominal species (type-species by selection by Manning (1963, *Bull. Mar. Sci. Gulf Carib.*, **13** (2) : 310) from among the species placed in the genus by the first subsequent author (Hansen, 1895, *Ergebn. Plankton-Exped.* **2** (G) (c) : 69, 84, 86) : *Squilla ciliata* Fabricius, 1787, *Mant. Ins.* **1** : 333). Like all stomatopod generic names derived from the word Erichthus, *Alimerichthus* and *Pseuderichthus* have so far been used only to indicate larval stages, and their use for adults may give rise to serious confusion. Furthermore, though it is very probable that *Alimerichthus cylindricus* is the larva of *Squilla ciliata*, there is no full certainty on this point, owing to our very imperfect present knowledge of the larval development of the Stomatopoda. Summarizing we may state that in applying the Code here strictly, the well known name *Pseudosquilla* must be given a relatively little known section of the former large genus, while the name *Alimerichthus*, which so far has been used for larvae only and the identity of which is not fully certain, has to be used for the best known and largest section of the old genus *Pseudosquilla*. The use of the plenary powers to designate *Squilla ciliata* as the type-species of the genus *Pseudosquilla* would solve the problem very easily. In that case the name *Pseudosquilla* can be used in the sense proposed by Serène (1962) for genus B, which is formed from the largest and best known part of the old genus, while the name *Pseudosquillopsis* then would become available for genus A; furthermore the " larval " names *Alimerichthus* and *Pseuderichthus* will then disappear in the synonymy of *Pseudosquilla*, and so become harmless. It is this solution that we now submit for approval to the Commission.

This nomenclatural problem is further confused by the fact that the two names listed immediately below are junior homonyms that have been applied to larval forms (*Alimerichthus* Claus) and a fossil form (*Pseuderichthus* Dames). The Commission is requested to place these names on the Official Index of Rejected and Invalid Names in Zoology. The names in question are: *Alimerichthus* Claus (1871, *Abh. Ges. Wiss. Göttingen* **16** : 146), a genus originally described without any included nominal species (type-species by present selection from among the species placed in the genus by the first subsequent author (Lanchester, 1903, *in* Gardiner, J. S., *Fauna and Geography of the Maldive and Laccadive Archipelagoes* **1** (4) : 457, 458): *Alimerichthus pyramidalis* Lanchester, 1903, *in* Gardiner, J. S., *loc. cit.* : 457 which is an invalid junior homonym of *Alimerichthus* Guérin, 1855; and *Pseuderichthus* Dames (1886, *Zeitschr. Deutsch. geol. Ges.* **38** : 571) (published after September, 1886) (type-species, by monotypy, *Pseuderichthus cretaceus* Dames, 1886, *Zeitschr. Deutsch.*

geol. Ges. **38** : 571) which is an invalid junior homonym of *Pseuderichthus* Brooks, 1886 (May).

The name *Pseuderichthus* was introduced into the literature on three separate occasions in 1886. Brooks, in a summary of his " Challenger " report, first published the name in May, 1886 in the Johns Hopkins University Circulars. Brooks again introduced the name sometime after August, 1886, in the " Challenger " report proper. Dames independently introduced the name sometime after September, 1886. The first use of the name by Brooks, of course, has priority.

3. The second problem is somewhat similar. Berthold (1827, Latreille's *Naturl. Fam. Thierr. :* 271) in the original description of the genus *Gonodactylus* stated: " Das Geschlecht *Gonodactylus* ist mit *Squilla Chiragra* und *Squilla Scyllarus* gebildet ". No type-species was indicated by Berthold. The first type selection for *Gonodactylus* known to us is the one by H. Milne Edwards (1837, Cuvier's *Règne Anim.* (ed. 4) (=Discip. ed.) **18** : pl. 55) who figured as the type-species of the genus *Gonodactylus* the species *Cancer scyllarus* Linnaeus, 1758. In view of the fact that this is one of the two species mentioned by Berthold (1827), his type selection is entirely valid. It is most unfortunate, however, as at present *Squilla chiragra* Fabricius, 1781, and *Cancer scyllarus* Linnaeus, 1758, are considered to belong to two different genera, and the name *Gonodactylus* is currently in use for the genus containing *Squilla chiragra. Cancer scyllarus*, on the other hand, is the type-species of the genus *Odontodactylus* Bigelow, 1893, which in Opinion 295 (1954, *Ops. Decls. int. Comm. zool. Nomencl.* **8** (12) : 155–166) was placed under the plenary powers of the Commission on the Official List under no. 731.

As the genus to which *Squilla chiragra* belongs is found throughout the tropics of practically the entire world, is extremely common where it occurs, and after being separated from *Squilla* has been known only under the name *Gonodactylus*, no other name being available for it, it would be extremely awkward for the name *Gonodactylus* to be dropped and a new name proposed for the genus. On the other hand, the name *Gonodactylus* has never been used for the genus *Odontodactylus* by any carcinologist who recognized *Cancer scyllarus* and *Squilla chiragra* as belonging to different genera. The fact that the name *Odontodactylus* was placed on the Official List under the plenary powers of the Commission would necessitate the suppression of the name *Gonodactylus* in order to save *Odontodactylus.* The best solution for this problem is quite simple: if, under the plenary powers of the Commission, *Squilla chiragra* Fabricius, 1781, is indicated to be the type-species of the genus *Gonodactylus* Berthold, the latter name can be used in its currently adopted sense, while the generic name *Odontodactylus* also remains available.

4. The third problem concerns the generic name *Smerdis* Leach, 1817. This genus was erected for two species: *Smerdis armata* Leach, 1817, and *Smerdis vulgaris* Leach, 1817; so far as is known to us no type-species has ever been selected for the genus. Both species are based on larval stages; *Smerdis armata*, according to the most current opinion, is probably the larva of *Coronida bradyi* (A. Milne Edwards, 1869), while *Smerdis vulgaris* in all probability is the larva of *Lysiosquilla scabricauda* (Lamarck, 1818). To conform to

Recommendation 69B (5) of the International Code of Zoological Nomenclature, *Smerdis vulgaris* Leach is here selected as the type-species of the genus *Smerdis*. Hereby the name *Smerdis* Leach, 1817, becomes a subjective senior synonym of *Lysiosquilla* Dana, 1852, a name placed under the plenary powers of the Commission on the Official List in Opinion 294 (1954, *Ops. Decls. int. Comm. zool. Nomencl.* **8** (11) : 143–154). The Commission is now requested again to make use of its plenary powers and suppress the name *Smerdis* so as to validate the name *Lysiosquilla*.

5. The date and place of the original publication of the generic name *Smerdis* has been cited differently by different authors. In Neave's 1940 " Nomenclator Zoologicus " (**4** : 213) this generic name is cited as " *Smerdis* Leach, 1816, Journ. Physique, 86, 305 ". The genus (as well as the genus *Alima*) is indeed described by Leach on p. 305 (and the genus *Phyllosoma* on p. 306) of vol. 86 of Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts, but this part of the journal is that for " Avril an 1818 " as is very clearly indicated on p. 253 and also on pp. 301 and 309. The description of *Smerdis* was also published by Leach on p. 415 (and those of *Alima* and *Phyllosoma* on p. 416) of Appendix IV to J. K. Tuckey's " Narrative of an Expedition to explore the River Zaire, usually called the Congo, in South Africa, in 1816 ", which, as indicated on the title page was likewise published in 1818. The three genera, however, are also figured and named on an un-numbered plate in Tuckey's book. On this plate both *Smerdis armata* and *S. vulgaris* are shown and their names are given. On the bottom of this plate is printed " Published Novr. 1st, 1817, by John Murray, London ". As there is no indication that this statement is incorrect, 1 November 1817 thus must be accepted as the correct date of publication of the generic names *Smerdis*, *Alima*, and *Phyllosoma* as well as that of the names of the new species figured there. The generic name *Phyllosoma* Leach, placed on the Official Index of Rejected and Invalid Generic Names in Zoology as name no. 1144 in Opinion 507 (1958, *Ops. Decls. int. Comm. zool. Nomencl.* **18** (10) : 200), also is incorrectly cited there. The entry in the Index should be changed to: *Phyllosoma* Leach, 1817, Tuckey's Narrative Exped. River Zaire (app. 4): unnumbered pl. (type-species, by selection by Holthuis, 1956, *Bull. zool. Nomencl.* **12** : 55, *Phyllosoma commune* Leach, 1817, *Tuckey's Narrative Exped. River Zaire* (app. 4) : unnumbered pl.).

6. Some problems arise also with the generic name *Coronis* Desmarest, 1823, which is requested here to be placed on the Official List. *Coronis* Desmarest (1823, *Dict. Sci. nat.* **28** : 345) is a homonym of *Coronis* Huebner (1823, *Verz. bekannt. Schmett.* (17) : 265). Since the two names were published in the same year, it is important for the establishment of their relative priority to know their dates of publication more exactly. According to Sherborn (1922, *Index Anim.* (1) : xliv), volume 28 of the Dictionnaire des Sciences Naturelles was published in September 1823, while Hemming (1937, *Huebner* **1** : 488–517) made clear that the part 17 of Huebner's work was published on or before 21 December 1823. The present state of our knowledge of the publication dates of these two names indicates that *Coronis* Desmarest has priority over *Coronis* Huebner. Therefore we request the Commission to place the former of these two names on the Official List, the latter on the

Official Index. The genus *Coronis* Desmarest was originally described without included nominal species. Desmarest (1823), it is true, stated in his description " il est vraisemblable que la squille pieuse, *squilla eusebia*, de M. Risso, Crust., pag. 115, appartient a ce genre ", but he did not positively assign Risso's species to the new genus. Neither did Berthold (1827, Latreille's *Natürl. Fam. Thierr.*: 271), who remarked " das Geschlecht *Coronis* ist auf *Squilla Eusebia* von Risso, oder auf eine sehr nahe stehende Art gegründet ". The first species definitely assigned to *Coronis* is *Coronis scolopendra* Latreille (1828, *Encycl. méthod. Hist. nat.* (Ins.) **10** : 474) which consequently is its type-species.

7. All Stomatopod genera considered in the present proposal are currently considered to belong to the family Squillidae. Though the generic name *Squilla* Fabricius, 1787, has been placed on the Official List of Generic Names in Zoology, the family name Squillidae has not yet been inserted in the Official List of Family-Group Names in Zoology. Therefore this opportunity is taken to request the Commission to enter the name Squillidae on the appropriate list.

8. The concrete proposals which we now submit for consideration to the International Commission on Zoological Nomenclature are that they should:

(1) make use of their plenary powers:
   (a) to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy, the generic name *Smerdis* Leach, 1817, *Tuckey's Narrat. Exped. River Zaire* (app. 4): unnumbered pl. (type-species, by present selection: *Smerdis vulgaris* Leach, 1817, *Tuckey's Narrat. Exped. River Zaire* (app. 4): unnumbered pl.);
   (b) to set aside all designations or selections of type-species for the genus *Pseudosquilla* Dana, 1852, *U.S. Explor. Exped.* **13** : 615, 621, made prior to the proposed ruling, and having done so
   (c) to designate as the type-species of that genus *Squilla ciliata* Fabricius, 1787, *Mant. Ins.* **1** : 333;
   (d) to set aside all designations or selections of type-species for the genus *Gonodactylus* Berthold, 1827, Latreille's *Natürl. Fam. Thierr.* : 271, made prior to the proposed ruling, and having done so
   (e) to designate as the type-species of that genus *Squilla chiragra* Fabricius, 1781, *Spec. Ins.* **1** : 515;

(2) place on the Official List of Generic Names in Zoology the following names:
   (a) *Coronida* Brooks, 1886, *Johns Hopk. Univ. Circ.*, **5** (49) : 84 (a genus described without originally included nominal species; type-species, by selection by Balss, 1938, Bronn's *Klassen u. Ord. Tierr.*, **5** (1) (6) (2) : 130 : *Squilla bradyi* A. Milne Edwards, 1869, De Folin & Périer's *Fonds de la Mer* **1** : 137) (gender: feminine);
   (b) *Coronis* Desmarest, 1823, *Dict. Sci. nat.* **28** : 345 (type-species by subsequent monotypy: *Coronis scolopendra* Latreille, 1828, *Encycl. méthod. Hist. nat.* (Ins.) **10** : 474) (gender: feminine);

- (c) *Gonodactylus* Berthold, 1827, Latreille's *Natürl. Fam. Thierr.*: 271 (type-species, designated under the plenary powers under (1) (e) above: *Squilla chiragra* Fabricius, 1781, *Spec. Ins.* **1**: 515) (gender: masculine);
- (d) *Hemisquilla* Hansen, 1895, *Ergebn. Plankton-Exped.* **2** (G) (c) : 72 (type-species, by monotypy: *Gonodactylus styliferus* H. Milne Edwards, 1837, *Hist. nat. Crust.*, **2** : 530 [Note (not for inclusion in the Official List): This specific name is a subjective synonym of *Gonodactylus ensiger* Owen, 1832, *Proc. zool. Soc. London* **1832** : 6)] (gender: feminine);
- (e) *Pseudosquilla* Dana, 1852, *U.S. Explor. Exped.* **13** : 615, 621 (type-species, designated under the plenary powers under (1) (c) above: *Squilla ciliata* Fabricius, 1787, *Mant.* Ins. **1**: 333) (gender: feminine);

(3) place on the Official List of Specific Names in Zoology the following names:

- (a) *bradyi* A. Milne Edwards, 1869, as published in the combination *Squilla bradyi*, being the name of the type-species of the genus *Coronida* Brooks, 1886;
- (b) *chiragra* Fabricius, 1781, as published in the combination *Squilla chiragra*, being the name of the type-species of the genus *Gonodactylus* Berthold, 1827, as designated under (1) (e) above;
- (c) *ciliata* Fabricius, 1787, as published in the combination *Squilla ciliata*, being the name of the type-species of the genus *Pseudosquilla* as designated under the plenary powers under (1) (c) above;
- (d) *ensiger* Owen, 1832, as published in the combination *Gonodactylus ensiger*, [being the valid name of the type-species of the genus *Hemisquilla* Hansen, 1895];
- (e) *scolopendra* Latreille, 1828, as published in the combination *Coronis scolopendra*, being the name of the type-species of the genus *Coronis* Desmarest, 1823;

(4) place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:

- (a) *Coroniderichthus* Hansen, 1895, *Ergebn. Plankton-Exped.* **2** (G) (c) : 81, 83, 98, 102 (type-species by present selection: *Squilla bradyi* A. Milne Edwards, 1869, De Folin & Périer's *Fonds de la Mer* **1** : 137), an objective junior synonym of *Coronida* Brooks, 1886;
- (b) *Coronis* Huebner, 1823 (21 December), *Verz. bekannt. Schmett.* (17) : 265 (type-species by monotypy: *Coronis stollii* Huebner, 1823, *Verz. bekannt. Schmett.* (17) : 265) a junior homonym of *Coronis* Desmarest, 1823 (September).
- (c) *Gonerichthus* Brooks, 1886, *Johns Hopk. Univ. Circ.*, **5** (49) : 83 (a genus described without originally included nominal species; type-species, by present selection: *Squilla chiragra* Fabricius, 1781, *Spec. Ins.* **1** : 515) (an objective junior synonym of *Gonodactylus* Berthold, 1827);
- (d) *Pseuderichthus* Brooks, 1886 (May), *Johns Hopk. Univ. Circ.*, **5** (49) : 83 (a genus described without originally included nominal

species; type-species, by selection by Manning (1963, *Bull. Mar. Sci. Gulf Carib.*, **13** (2) : 310) from among the species placed in the genus by the first subsequent author (Hansen, 1895, *Ergebn. Plankton-Exped.* **2** (G) (c): 69, 84, 86): *Squilla ciliata* Fabricius 1787, *Mant. Ins.* **1** : 333) (an objective junior synonym of *Pseudosquilla* Dana, 1852);

(e) *Pseudosquille* Eydoux & Souleyet, 1842, *Voy. Bonite* (Zool.) **1** (2): 263 (a vernacular (French) name);

(f) *Pseuderichthus* Dames, 1886 (after September), *Zeitschr. Deutsch. geol. Ges.* **38** : 571 (type-species, by monotypy, *Pseuderichthus cretaceus* Dames, 1886, *Zeitschr. Deutsch. geol. Ges.* **38** : 571), a junior homonym of *Pseuderichthus* Brooks, 1886;

(g) *Alimerichthus* Claus, 1871, *Abh. Ges. Wiss. Göttingen* **16** : 146 (type-species, by present selection, *Alimerichthus pyramidalis* Lanchester, 1903, *in* Gardiner, J. S., *Fauna and Geography of the Maldive and Laccadive Archipelagoes* **1** (4) : 457), a junior homonym of *Alimerichthus* Guérin, 1855;

(h) *Smerdis* Leach, 1817, *Tuckey's Narrat. Exped. River Zaire* (app. 4) : unnumbered pl. (as suppressed under the plenary powers in (1) (a) above);

(5) place on the Official List of Family Group Names in Zoology the name SQUILLIDAE (correction of SQUILLARES by White, 1847, *List Crust. Brit. Mus.* : 83) Latreille, [1802–1803], *Hist. nat. Crust. Ins.* **3** : 36 (type-genus *Squilla* Fabricius, 1787).

GRISELDA RADICANA HEINRICH, 1923 (INSECTA, LEPIDOPTERA): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1612

By Nicholas S. Obraztsov[1] (Research Fellow, *Department of Entomology, the American Museum of Natural History, New York*)

In his *Revision of the North American Moths of the Subfamily Eucosminae* Heinrich (1923, *Bull. U.S. nat. Mus.* **123:** 186, pl. 7, fig. 36; pl. 49, fig. 329) established a new genus *Griselda* and designated *Paedisca radicana* Walsingham (1879, *Illustr. Lepid. Heter. Brit. Mus.* **4:** 53, pl. 72, fig. 5) as its type-species. The examination of the type-specimen of this species, made by the author of this proposal as a part of his research on the Nearctic Tortricidae, has shown that this species and the species known from the above publication of Heinrich as *Griselda radicana* are not conspecific and not even congeneric. Thus, in accordance with this examination the genus *Griselda* Heinrich becomes a genus with a misidentified type-species, and must be ruled in compliance with Article 70, Section (a), of the *International Code.*

It is evident that the name " *Griselda radicana* (Walsingham)" can no longer be used for the type-species of the genus *Griselda*, but it is nevertheless desirable to conserve this binominal combination which has been in general usage for forty years. Although Heinrich did not intend to describe his *radicana* as a new species and gave no detailed diagnosis of it, *de facto* he was the real creator of the conception of " *Griselda radicana* " as it is known at present. He defined this species in keys and published two figures of its male genitalia. Thus, he made his " *Griselda radicana* " completely recognizable as a species distinct from *Paedisca radicana* Walsingham. For this reason it seems to be expedient to ask the International Commission to make use of its plenary powers and validate *Griselda radicana* Heinrich (not Walsingham) as the name of the type-species of the genus *Griselda* Heinrich. This action of the Commission will save the generic name *Griselda* Heinrich from becoming a subjective synonym of the genus *Epiblema* Hübner, and is important for conservation of the binominal combination *Griselda radicana.* No synonym is available for replacement of either the generic or specific names cited above.

The nominal *Paedisca radicana* Walsingham is a species belonging to the genus *Epiblema* Hübner and synonymous with *Eucosma vomonana* Kearfott (1907, *Trans. Amer. ent. Soc.* **33** : 90) = *Eucosma serangias* Meyrick (1912, *Ent. mon. Mag.* **48**: 35; a substitute name). In accordance with Article 23, Section (b), of the International Code, the name *Paedisca radicana* Walsingham should be treated as " a name that has remained unused as a senior synonym in the primary zoological literature for more than fifty years ", and " be considered a forgotten name (nomen oblitum)". It would however be unjust to reject the name *Paedisca radicana* Walsingham (1879) as the prior synonym of the species in question. The original description of this species and its colored figure permit its recognition. Its type-specimen is in good condition, and is deposited in the British Museum (Natural History). Also in respect to its author, one of the most active pioneers in the study of the Nearctic moths, conservation of the name *Paedisca radicana* Walsingham and recognition of its priority before *Eucosma vomonana* Kearfott are to be desired. It is therefore advisable to ask the International Commission to restore the priority of the name *Paedisca radicana* Walsingham excluding it from the category of *nomina oblita* not available as senior synonyms, and place this specific name on the Official List of Specific Names in Zoology.

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[1] Grant of the U.S. National Science Foundation.

The concrete proposals submitted herewith to the International Commission for consideration are:

(1) to use its penary powers to make available the species name *Griselda radicana* Heinrich, 1923, despite the fact that this was a misidentification and that Heinrich had no intention of publishing a new name, and having done so, to designate that nominal species to be type of *Griselda* Heinrich, 1923;

(2) to place the generic name *Griselda* Heinrich, 1923 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Griselda radicana* Heinrich, 1923 (non *Paedisca radicana* Walsingham, 1879) on the Official List of Generic Names in Zoology;

(3) to place the following specific names on the Official List of Specific Names in Zoology:

   (a) *radicana* Heinrich, 1923, as published in the binomen *Griselda radicana* (type-species of *Griselda* Heinrich, 1923);

   (b) *radicana* Walsingham, 1879, as published in the binomen *Paedisca radicana*.

BAETIS [LEACH, 1815] (INSECTA, EPHEMEROPTERA) : PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS. Z.N.(S). 1620

By D. E. Kimmins, (*British Museum* (*Natural History*) *London*)

The object of this application is to request the use of the plenary powers to stabilize the current usage of the generic name *Baetis* [Leach, 1815] by designating for that taxon a type-species which was not an originally included species.

The generic name *Baetis* was first used by Leach, 1815 (*in* Brewster's *Edinb. Encycl.* **9** : 137), the only included species being *Ephemera bioculata* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 577). Linnaeus' description of *E. bioculata* was very brief but included a reference to a fuller description (1746, *Fauna Suecia*, no. 751). This fuller description was reprinted in the binominal second edition of this work (1761 : 376). The name *Baetis bioculatus* (L., 1758) (often mis-spelt *binoculatus*) has been universally quoted as the type-species of *Baetis* Leach.

In 1912, Bengtsson (*Ark. Zool.* **7** (36) : 4–5) cast doubts on the accepted interpretation of *Baetis bioculatus* (L., 1758) and, after considering the fuller description given in the *Fauna Suecica*, he came to the conclusion that the species generally called *Baetis bioculatus* (L.) was not conspecific with *Ephemera bioculata* Linnaeus, and that the latter name ought to be applied to the species *Ephemera diaphanum* Müller, 1776 (*Zool. dan. Prodrom.* : 143) (=*Centroptilum luteolum* auct.). In the same paper, Bengtsson states (p. 5) that the species *Baetis bioculatus* auct. nec. L. is in fact *Ephemera fuscata* Linnaeus, (1761 : 376). This species was placed by Eaton (1885, *Trans. Linn. Soc. Lond.* (2) **3** (Zool.) : 158) in the synonymy of the mis-identified species *Baetis bioculatus* (L.). These changes were not adopted by Ulmer (1929, *Tierw. Mitteleur.* **4** (1) III) (possibly due to a dislike of disturbing a well-established name) nor by Schoenemund (1930, *Tierw. Deutschl.* **19**) and in consequence they have been overlooked or ignored by the majority of later workers.

Concerning the types of these Linnean species, they are not represented in the Linnean Society's collection, and Bengtsson (1912) states " Little or nothing of value seems to be left now of LINNÉ'S and FABRICIUS' types of this group ". We are thus left with only the descriptions on which to base our interpretations. Bengtsson's conclusions are derived from these descriptions and from his knowledge as to which of the commoner Scandinavian species best fitted the descriptions.

There appears to be no reason to reject Bengtsson's findings and we are therefore faced with two alternatives:

(1) to accept Bengtsson's interpretation of *Ephemera bioculata* Linnaeus, 1758, as the species which Leach intended, when he cited *E. bioculata* L. as the type-species of his genus *Baetis*. Such action would entail the transfer of the well-established name *Baetis* to the group of

species currently known as *Centroptilum* Eaton, and the large group of species hitherto known as *Baetis* would require a change of name; or

(2) to accept *Baetis fuscatus* (Linnaeus, 1761) (= *Baetis bioculatus* auct.) as the type-species of *Baetis* [Leach, 1815], thus preserving the current usage of both the generic names *Baetis* and *Centroptilum.*

Since the second alternative is in the greater interests of stability of nomenclature, the Commission is therefore requested

(1) to use its plenary powers (under Art. 70(a)) to set aside all selections of type-species for the genus *Baetis* [Leach, 1815], made prior to the Ruling now requested and, having done so, to designate *Ephemera fuscata* Linnaeus, 1761, to be the type-species of that genus;

(2) to place on the Official List of Generic Names in Zoology the generic name *Baetis* [Leach, 1815] (gender : masculine), type-species by designation under the plenary powers in (1) above, *Ephemera fuscata* Linnaeus, 1761; and

(3) to place on the Official List of Specific Names in Zoology the specific name *fuscata* Linnaeus, 1761, as published in the binomen *Ephemera fuscata* (type-species of *Baetis* [Leach, 1815]).

MEGALOPTA SMITH, 1853 (INSECTA, HYMENOPTERA): PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS.

Z.N.(S.) 1624

By Charles D. Michener (*University of Kansas, Lawrence, Kansas, U.S.A.*) and
J. S. Moure, C.M.F. (*University of Paraná, Curitiba, Brazil*)

The purpose of the present application is to request the use of the plenary powers to designate a type-species for *Megalopta* Smith, 1853, in accordance with accustomed usage.

2. *Megalopta* Smith, 1853 (*Catalogue hymenopt. Ins. Coll. Brit. Mus.* **1** : 83) was described with two included species, *bituberculata* Smith, 1853, and *idalia* Smith, 1853. The genus has become well-known in the neotropical region and has never been attributed to any other area. There is a monograph of the genus by Friese (1926) and revisional or biological studies by Cockerell (1900), Ducke (1912), Schrottky (1902), Moure, (1943, 1958) and others.

3. Cockerell (1900, *Proc. Acad. nat. Sci. Philad.*) and Meade-Waldo (1916, *Ann. Mag. nat. Hist.* (8) **17** : 451) designated *M. bituberculata* as the type-species. Unfortunately the type of *M. bituberculata* is actually an Australian insect in a different subfamily erroneously attributed to South America, as an examination of the type specimen in the British Museum (Natural History) shows. It would normally be placed in the Indoaustralian genus or subgenus *Reepenia* Friese, 1909 (*Ann. Hist. Nat. Mus. Hungarici* 7 : 205). Acceptance of the type designation would result in transfer of the name *Megalopta* from a Neotropical to an Australian group of bees and changes in the names of both groups.

4. Moure, 1958 (*J.N.Y. ent. Soc.* **66** : 179) argued that, because most of the characters cited in the original description of *Megalopta* were based upon *M. idalia*, that form and not *M. bituberculata* ought to be the type-species of the genus. This is in accordance with the type designation of *idalia* by Ducke, 1912 (*Zool. Jahrb.*, Syst. **34** : 85). Regardless of the validity of Moure's argument, it is obvious that to conserve the currently accepted generic nomenclature, the Commission should take the following steps:

(1) make use of its plenary powers to set aside all designations of type-species for the nominal genus *Megalopta* Smith, 1853, and, having done so, designate *Megalopta idalia* Smith, 1853, to be the type-species of that genus;

(2) place the following generic names on the Official List of Generic Names in Zoology:

- (a) *Megalopta* Smith, 1853 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Megalopta idalia* Smith, 1853;

(b) *Reepenia* Friese, 1909 (gender : feminine), type-species, by monotypy, *Nomia variabilis* Friese, 1909;

(3) place the following specific names on the Official List of Specific Names in Zoology:

(a) *idalia* Smith, 1853, as published in the binomen *Megalopta idalia* (type-species of *Megalopta* Smith, 1853);

(b) *variabilis* Friese, 1909, as published in the binomen *Nomia variabilis* (type-species of *Reepenia* Friese, 1909).

AMAUROBIUS C.L. KOCH, 1837 AND *COELOTES* BLACKWALL, 1841, (ARACHNIDA, ARANEAE): PROPOSED PRESERVATION UNDER THE PLENARY POWERS. Z.N.(S.) 1625

By Herbert W. Levi (*Museum of Comparative Zoology, Harvard University, Cambridge, Mass., U.S.A.*) and Otto Kraus (*Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*).

1. The purpose of the present application is to ask that the International Commission on Zoological Nomenclature use its plenary powers to suppress the generic names *Amaurobius* C. L. Koch, 1836, and *Cavator* Blackwall, 1840, and place them on the Official Index of Rejected and Invalid Generic Names in Zoology, and place the generic names *Amaurobius* C. L. Koch, 1837, and *Coelotes* Blackwall, 1841, on the Official List of Generic Names in Zoology.

2. The facts relating to this case have recently been summarized by Kraus (1962, *Senckenbergiana biol.*, **43** (2): 149–151), who points out that C. L. Koch twice introduced the name *Amaurobius* into literature, and that the date of one of these was probably 1836, not later as thought by many authors. In this report we rely on Kraus' paper, as some of the evidence is not readily available.

3. *Amaurobius* C. L. Koch, 1836 (*in* Panzer, *Deutschlands Insekten*, published by Herrich-Schäffer, Heft 141, 5–6; and *in* Herrich-Schäffer, *Deutschlands Crustaceen, Myriapoden und Arachniden*, Heft 8, 5–6). The dates of publication have always been in doubt, but Kraus believes, and cites evidence to indicate, that the papers cited above were published simultaneously on 1 October 1836. Two species, *A. roscidus* C. L. Koch, 1836, and *A. tigrinus* C. L. Koch, 1836, were originally included in *Amaurobius* on this occasion. These species have been interpreted by later authors (Canestrini and Pavesi, 1868 : 800; Thorell, 1873: 437, 502; Simon, 1937: 1035) as belonging to the genus well known under the name *Coelotes* Blackwall, 1841, family AGELENIDAE.

One of the originally included species, *A. roscidus*, has been fixed as the type-species of this genus *Amaurobius* by F. O. Pickard-Cambridge [1902, *Ann. Mag. nat. Hist.*, (7) **9** : 20].

4. *Amaurobius* C. L. Koch, 1837, (*Übersicht des Arachnidensystems*, **1** : 15). Seven nominal species were included on this occasion: *A. roscidus*, *A. tigrinus*, and five others, of which one, *Clubiona atrox* Latreille, 1806 [= *Aranea fenestralis* Ström, 1768], was designated type-species by Thorell (1870, *On European Spiders*, p. 126).

This is the sense in which the important and well-known name *Amaurobius* C. L. Koch, 1837, has always been in common use.

5. According to Kraus, 1962, this type-designation by Thorell is invalid because it was of a nominal species originally not included in *Amaurobius* C. L. Koch, 1836. Following priority, *Amaurobius* C. L. Koch, 1836, with type *A. roscidus*, has to be used for the common European spiders previously placed in *Coelotes* Blackwall, 1841. The cribellate genus heretofore called *Amaurobius* by most authors would lose this name and, instead of it, take the oldest available name, *Ciniflo* Blackwall, 1840 [*Proc. Linn. Soc. Lond.*, **1** (8) : 66, and *Ann. Mag.*

nat. Hist., (1) **6** : 229]. For the family-group-name AMAUROBIIDAE the name CINIFLONIDAE Blackwall, 1841 [*Trans. Linn. Soc. Lond.*, **18** (4): 606] would have to be used.

6 Name-changing according to (5) would be extremely unfortunate and would lead to hopeless confusion, as during the last sixty years the name *Amaurobius* and the family-name AMAUROBIIDAE have been used in virtually all pertinent literature for this common group of cribellate spiders. This includes Gerhardt and Kaestner, 1937 [*in* Kükenthal's *Handbuch der Zoologie*, 3 (2)]; Millot, 1949 (*in* Grassé, *Traite de Zoologie*, **6**); Roewer, 1942 (*Katalog der Araneae*); Bonnet, 1955 (*Bibliographia Araneorum*); numerous textbooks; and the great majority of all authors.

On the other hand, Kraus (1962) cites only the following few uses of *Ciniflo*: F. O. Pickard-Cambridge, 1902, Kulczynski, 1907; Lessert, 1910; Drensky, 1917, 1929; Bristowe, 1939, 1958; Locket & Millidge, 1951, 1953, in the important " Spiders of Great Britain ", Cloudsley-Thompson, 1957; and Casemir, 1961.

Amaurobius C. L. Koch, 1837, contains over 100 nominal species from all parts of the world. Many species are common. The combination *Amaurobius fenestralis* (Ström), as an example, has been used approximately 184 times between 1900 and 1961; the combination *Ciniflo fenestralis* only 15 times between 1900 and 1961 (for a common European spider). The combination *Amaurobius bennetti* (Blackwall) has been used about 30 times between 1900 and 1961 for the common North American spider; it has never been placed in *Ciniflo* during this period.

7. *Coelotes* Blackwall, 1841 [*Trans. Linn. Soc. Lond.*, **18** (4) : 618] is the well-known name for the genus of AGELENIDAE, which without action by the Commission, would have the name *Amaurobius* C. L. Koch, 1836 [see above (5)]. There is no difficulty with the type-species of this genus: only one species was originally included in *Coelotes*, *Clubiona saxatilis* Blackwall, 1833 [= *Drassus atropos* Walckenaer, 1830], which consequently is its type-species by monotypy.

8. The generic name *Cavator* Blackwall, 1840 [*Proc. Linn. Soc. Lond.*, **1** (8) : 66; and *Ann. Mag. nat. Hist.*, (1) **6** : 229] also is based on a single originally included species, which automatically becomes its type-species by monotypy: *Clubiona saxatilis* Blackwall, 1833.

Cavator, then, proves to be a senior objective synonym of *Coelotes* and, following priority, *Cavator* would be the valid name for the genus in question after suppression of *Amaurobius* C. L. Koch, 1836.

9. But the name *Cavator* has remained completely unused since its introduction into literature (there are only some citations in bibliographical indexes). In contrast, *Coelotes* is a very important name and has been in use continuously, with the exception of the few authors who used *Amaurobius* (in the sense of C. L. Koch, 1836). There cannot be any doubt that the long-forgotten name *Cavator* should be suppressed. By this action, in addition to the suppression of *Amaurobius* C. L. Koch, 1836 [i.e. stabilization of *Amaurobius* in the accustomed sense of C. L. Koch, 1837], the name *Coelotes* would be retained for a genus containing about 50 nominal Eurasian species, some of them very common. As an example, the combination *Coelotes atropos* (Walckenaer,

1830) has been used about 126 times during the period 1900–1961; *Amaurobius atropos*, only 8 times.

10. *Caelotes* Blackwall, 1849 [*Ann. Mag. nat. Hist.*, (2) **4**: 276] is an unjustified emendation of *Coelotes* and should be placed on the appropriate Official Index on this occasion.

11. The family-group-name AMAUROBIIDAE Thorell, 1870 (*On European Spiders*, pp. 119, 121, as AMAUROBIINAE) is based on *Amaurobius* C. L. Koch, 1837. It is now proposed to place this name on the appropriate Official List, and to place the name CINIFLONIDAE Blackwall, 1840 [*Trans. Linn. Soc. Lond.*, **18** (4) : 606] on the Official Index of Rejected and Invalid Family-Group-Names in Zoology, for it is based on *Ciniflo* Blackwall, 1840, a junior objective synonym of *Amaurobius* C. L. Koch, 1837.

12. To sum up, strict application of priority would result in transfer of the well-known and important generic name *Amaurobius*, and the family-group-name AMAUROBIIDAE, from cribellate to ecribellate (agelenid) spiders. In our opinion such action would be in conflict with the guiding principles of the Code as expressed in its Preamble, and would upset both stability and continuity.

The present application, worked out by H. W. Levi and O. Kraus, is strongly supported by the following specialists in Arachnology: H. Exline, (Rolla, Missouri, U.S.A.); W. J. Gertsch (American Museum of Natural History, New York, U.S.A.); H. Homann, (Göttingen, Germany); G. H. Locket (Stockbridge, Hampshire, U.K.); A. F. Millidge (Coulsdon, Surrey, U.K.); H. Wiehle (Dessau, Anh., Germany).

13. To summarize, we ask the International Commission on Zoological Nomenclature to take the following action:

(1) to use its plenary powers to suppress for purposes of the Law of Priority and for those of the Law of Homonymy the following generic name: *Amaurobius* C. L. Koch, 1836; *in* Panzer, *Deutschlands Insekten*, published by Herrich-Schäffer, Heft 141, 5–6; and *in* Herrich-Schäffer, *Deutschlands Crustaceen, Myriapoden und Arachniden*, Heft 8, 5–6;

(2) to use its plenary powers to suppress for purposes of the Law of Priority but not for those of the Law of Homonymy the following generic name: *Cavator* Blackwall, 1840, *Proc. Linn. Soc. Lond.*, **1** (8) : 66; and *Ann. Mag. nat. Hist.*, (1) **6** : 229;

(3) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Amaurobius* C. L. Koch, 1837, *Übersicht des Arachnidensystems*, **1** : 15, (gender : masculine) type-species *Clubiona atrox* Latreille 1806, by subsequent designation by Thorell, 1870;
  (b) *Coelotes* Blackwall, 1841, *Trans. Linn. Soc. Lond.*, **18** (4): 618, (gender : masculine) type-species *Clubiona saxatilis* Blackwall, 1833, by monotypy;

(4) to place on the Official List of Specific Names in Zoology the following names:
  (a) *fenestralis*, *Aranea*, Ström, 1768, *Trondh. Selśk. Skr.*, **4** : 362;
  (b) *atropos*, *Drassus*, Walckenaer, 1830, *Faune française*, Aranéides, [illegible] **27** : 171; [illegible]

(5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
  (a) *Amaurobius* C. L. Koch, 1836, as requested in (1) of this application;
  (b) *Cavator* Blackwall, 1840, as requested in (2) of this application;
  (c) *Ciniflo* Blackwall, 1840, *Proc. Linn. Soc. Lond.*, **1**, (8) : 66, and *Ann. Mag. nat. Hist.*, (1) **6** : 229, a junior objective synonym of *Amaurobius* C. L. Koch, 1837;
  (d) *Caelotes* Blackwall, 1849, *Ann Mag. nat. Hist.*, (2) **4** : 276, an unjustified emendation of the name *Coelotes* Blackwall, 1841;

(6) to place on the Official List of Family-Group-Names in Zoology the following name:
  AMAUROBIINAE Thorell, 1870, *On European Spiders*, pp. 119, 121, (type-genus *Amaurobius* C. L. Koch, 1837);

(7) to place on the Official Index of Rejected and Invalid Family-Group-Names in Zoology the following name:
  CINIFLONIDAE Blackwall, 1840, *Trans. Linn. Soc. Lond.*, **18** (4) : 606 (type-genus *Ciniflo* Blackwall, 1840).

TIBICENIDAE VAN DUZEE, 1916 (INSECTA, CICADOIDEA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS IN FAVOUR OF PLATYPLEURIDAE SCHMIDT, 1918. Z.N.(S.) 1626

By W. E. China (*British Museum* (*Nat. Hist.*) *London*)

The appearance in 1963 of Fascicle VIII of the General Catalogue of the Homoptera (Metcalf Z.P.) has drawn attention again to the great confusion which still exists in the classification and nomenclature of the Cicadas. This confusion has been caused by a change over in the type designation of the genus *Cicada* Linnaeus, 1758, whereby the family-group name Cicadinae was transferred to another subfamily Gaeaninae Distant. The new name for the original subfamily (Cicadinae Distant) was unfortunately based by Van Duzee, 1916 (*Check List of Hemiptera of America N. of Mexico*: 55) on the genus *Tibicen* Latreille in Berthold, 1827, and called Tibiceninae. Seeing that there was already a subfamily Tibicininae Distant, 1905, based on the genus *Tibicina* Kolenati, 1857, the similarity of these two group-names, differing by only one letter, has resulted in continual confusion. The mis-spelling of one or the other by various authors has misled the cataloguers who, not being specialists, have placed the taxa concerned in the wrong subfamily or family in their catalogue. Mr. Alfred Orian has recently (1964) published a paper (*Ann. Mag. nat. Hist.* (13) **6** : 321-328, describing a new genus of cicada from Rodriguez, in which he draws attention to this confusion and gives examples.

Some of the most important genera concerned, as type genera of the family-groups, have had a chequered history of identification and mis-identification. Mr. Orian has dealt with some of these but it is felt that a complete statement of the case is badly needed in the interest of future workers who may not have the original works immediately available.

2. Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 436) originally included 42 species in his genus *Cicada* but only 11 of them were in his group Manniferae which comprised the true Cicadas.

In 1801, Lamarck (*Syst. Anim. sans Vertèbres:* 292) cited *C. orni* Linnaeus as a single example of the genus *Cicada* Linnaeus. According to Opinion 79 Lamarck's examples are not acceptable as type-species designations and are invalid. In [1802–1803] Latreille (*Hist. nat. Crust. Ins.* **3** : 257) also cited *C. orni* L. as an example of *Cicada* Linnaeus and this too is unacceptable as a type-designation. In 1807 Latreille (*Gen. Crust.* **3** : 152) cited *C. haematodes* Scopoli, 1763, as an example but this work has been ruled out by the Commission for type-species designations. In any case, C. *haematodes* Scopoli was not one of the originally included species.

In 1810, Latreille (*Consid. général* : 434) designated *Tettigonia plebeia* Scopoli as type-species but this again is not an originally included species.

3. In 1857, Kolenati (*Melet. Ent.* **7** : 6) validly established the genus *Tettigia* for *Cicada orni* L. type-species by monotypy. Although this name had been previously described by Amyot in his *Méthod. Mononymique* 1847 : 348,

Amyot's work has been rejected in Opinion 686. *Tettigia* must therefore be attributed to Kolenati. In the same work Kolenati validly established the genus *Tibicina* Amyot for the single species *Cicada haematodes* Scopoli which is therefore type-species by monotypy. *Tibicina* also must be attributed to Kolenati.

4. Distant 1905 (*Ann. Mag. nat. Hist.* (7) **15** : 304) followed Latreille, 1810, in designating *C. plebeia* Scopoli, 1763, as type-species of *Cicada* L. 1758, but as pointed out above, this species was not one of the originally included species and the designation is invalid.

In 1906, Distant published his *Synonymic Catalogue of Homoptera*, Part 1, *Cicadidae* (British Museum, London), which was the first work to deal with the classification of the Cicadidae in a comprehensive, world-wide manner. Distant split up the old family Cicadidae into three subfamilies Cicadinae, Gaeaninae and Tibicininae, based on the structure of the tympanal coverings. Each subfamily was further subdivided into a number of Divisions equivalent to tribes.

5. In 1907, Jacobi (*Zool. Anz.* **32** : 7) raised Distant's division Tettigadesaria of the Tibicininae to subfamily rank, the Tettigadinae becoming the fourth subfamily of Cicadidae.

6. The type-species of *Cicada* Linnaeus, 1758, was validly designated for the first time by Van Duzee in 1916 (*Check List of Hemiptera of America N. of Mexico* : 56). Van Duzee did so because he thought that Lamarck in 1801 had validly designated the type-species by nominating *Cicada orni* L., but as shown in paragraph (2) above Lamarck's designation is not acceptable (Opinion 79). However, Van Duzee's own citation was valid.

The consequent switch of type-species of *Cicada* Linnaeus from *C. plebeia* Scopoli to *C. orni* Linnaeus automatically transferred *Cicada* Linnaeus from Distant's subfamily Cicadinae to his subfamily Gaeaninae leaving the subfamily-group Cicadinae Distant nec Van Duzee without a name. For this group, as pointed out in (1) above, Van Duzee, 1916, unfortunately established the name Tibiceninae.

7. In 1919, Schmidt (*Stettin ent. Zeitg.* **80** : 366) established three new tribes in Distant's subfamily Cicadinae (=Tibiceninae V. Duz.), Polyneurini, Platypleurini and Talaingini the latter having been removed from Distant's Gaeaninae. Since he had already used the tribal name Platypleurini in the previous year (*Stettin ent. Zeitg.* **79** : 378) it will date from 1918.

8. In 1925, Handlirsch (*in* Schroeder *Handb. Ent.* 3 : 1116–1117) criticised Distant's classification and replaced it as follows:

He divided the family Cicadidae into three subfamilies

(1) Cicadinae (which he attributed to Buckton[1]) comprising Distant's

---

[1] Both Latreille & Buckton used their terms Cicadariae and Cicadae respectively to cover the whole of the Auchenorrhynchous Homoptera. Leach used the group name Tettigonides for the Cicadas proper but this is invalid being based on a homonym of *Tettigonia* L. 1758 in the Orthoptera. The first author to establish a valid family-group name Cicadidae for the Cicadas was Westwood, 1840 (*Introd. mod. Classif. Insects* 2 : 420).

Tibicininae and Gaeaninae. This group he split into 5 tribes, Hemidictyini, Chlorocystini, Tettigarctini, Tibicinini and Cicadini.

(2) Platypleurinae (=Cicadinae Distant)

(3) Tettigadinae Jacobi

His use of Cicadinae for Distant's two subfamilies Gaeaninae and Tibicininae together was an innovation, since Van Duzee had retained Tibicininae as a distinct subfamily. In replacing Tibiceninae Van Duzee by Platypleurinae Handlirsch was following Schmidt, 1918 and obviated the confusion which arises by the use of both Tibiceninae Van Duzee and Tibicininae Distant for two different subfamily groups within the Cicadidae.

9. In 1926, Horvath (*Ann. Mus. Nat. Hung.* **16** : 321–40) attempted to clear up the confusion concerning the generic names of the three large European Cicadas. He correctly followed Van Duzee, 1916 in accepting *Cicada orni* Linnaeus as type-species of *Cicada* L. but he wrongly designated *Cicada haematodes* Scopoli, 1763, as the type-species of *Tibicen* Latreille, 1827. *Tibicen* Latreille was actually monotypic with the single included species *Cicada plebeia* Scopoli 1763. This latter species Horvath, 1926, designated as the type-species of his new nominal genus *Lyristes* which consequently falls as an objective junior synonym of *Tibicen* Latreille. As shown in 3 above, Kolenati was the first to give a valid name, *Tibicina*, to the generic concept typified by *Cicada haematodes* Scopoli.

10. Myers, 1929 (*Insect Singers*, London pp. 80–85) discussed the classification of the Cicadas and adopted still another arrangement. He raised Handlirsch's tribe Tettigarctini to subfamily rank and attributed it to Tillyard, but since all categories are coordinate, the subfamily Tettigarctinae must be attributed to Distant (Tettigarctaria 1906). He also retained Tettigadinae Jacobi. Myers used the name Tibicininae Distant for Handlirsch's Cicadinae but split off Handlirsch's tribe Cicadini (=Gaeaninae Dist.) which he placed with the Moganniini Distant in the subfamily Cicadinae V. Duzee. (=Gaeaninae Dist.). He followed Handlirsch, 1925, in using the name Platypleurinae for Van Duzee's Tibiceninae. Myers therefore accepted 5 subfamilies instead of the 3 of Handlirsch : Tettigarctinae, Tettigadinae, Tibicininae, Cicadinae & Platypleurinae.

11. Up to 1927, Kato, a prolific writer on Japanese Cicadidae, used Distant's three subfamilies, Cicadinae, Gaeaninae and Tibicininae having overlooked Van Duzee's 1916 change in family-group names. But in 1930 (*Bull. Biogeogr. Soc. Japan* **2** : 38–39) he replaced Cicadinae Distant, 1906, by Platypleurinae Schmidt, 1918 (Handlirsch 1925) and Gaeaninae Distant, 1906, by Cicadinae Van Duzee 1916. In 1932, Kato (*Monograph of Cicadidae*) published a new classification of the Cicadas comprising some radical changes not generally approved and on p. 144 established the family-group name Platypediinae. Kato's works are mainly in Japanese and therefore difficult to study critically.

12. In 1939, Metcalf (*J. Soc. Bibl. nat. Hist.* **1** : 247) inadvertently published a preview of his new classification of the Cicadidae in an appendix to a technical paper entitled Hints on Bibliographies. The classification was part of an Outline of a Topical Index. Metcalf raised the family Cicadidae Westwood to superfamily rank, Cicadoidea with only two families (1) Cicadidae and (2) Tibicinidae. His Cicadidae was divided into two subfamilies (a) Tibiceninae V. Duzee, 1916 (=Cicadinae Dist. 1889 =Platypleurinae Schmidt, 1919, Handlirsch 1925, Kato 1930) and (b) Cicadinae V. Duzee 1916 (=Gaeaninae Dist. 1906). His Tibicinidae included four subfamilies.

(a) Tibicininae Distant, 1906.
(b) Tettigadinae (Distant 1906) (Tettigadesaria Dist, 1906 = Tettigadinae Jacobi, 1907, and Handlirsch 1925).
(c) Platypediinae. Kato 1932.
(d) Tettigarctinae Dist. 1906 (=Tettigarctaria Dist. 1906).

13. In 1954, Kato (*Kontyû* **21** : 97–99) published a short paper (presumably because his 1932 monograph had been overlooked by western workers) in which he repeated his 1932 classification. Kato raised Metcalf's Tettigadinae to Tettigadidae claiming it as a new family. This group must be attributed to Distant, 1906, who first established a supra-generic name (Tettigadesaria) for it. Kato raised the Platypediinae of Metcalf to family rank and correctly claimed it as his family (fam. nov.). He also raised Tettigarctinae Metcalf to family rank but this too must be attributed to Distant, 1906. The principal change was the lumping of the subfamilies Platypleurinae Handlirsch (=Cicadinae Distant) and Cicadinae Van Duzee (=Gaeaninae Distant) to form a new subfamily Cicadinae of the family Cicadidae. Kato retained the subfamily Tibicininae Distant in his family Cicadidae.

14. In 1956, Kato published a book entitled *The Biology of the Cicadas* (Bull. of the Cicadidae Museum) Tokyo, in which he maintained his 1932 classification and gave keys in Japanese to the tribes. He also gave a phylogenetic dendrogram to the group.

Although Kato avoided the confusion between the subfamily names Tibiceninae and Tibicininae by reducing the Tibiceninae to tribal status under his Cicadinae, the confusion still remained at tribal level. He retained both Tibicenini and Platypleurini as tribes of his Cicadinae. As pointed out in paragraph 13 above, under the Code, Article 36, all categories of the family-group are coordinate. The only family-group name to be attributed to Kato (1932) is, therefore, Platypediidae.

15. In 1962, the appearance of *A bibliography of the Cicadoidea* by Z. P. Metcalf was the prelude to the publication in 1963 of his *General Catalogue of the Homoptera*, Fascicle VIII in three volumes. Cicadoidea Part 1 Cicadidae, Section I, Tibiceninae (volume 1) and Section II Gaeaninae and Cicadinae (volume 2): The third volume consisted of Part 2 Tibicinidae.

The only change by Metcalf in 1963 was the separation of Gaeaninae from Cicadinae.

The changes in the classification are shown in the following table:

Metcalf 1939	Kato 1954	Metcalf 1963
Cicadoidea	Cicadoidea	Cicadoidea
Fam. 1. Cicadidae	Fam. 1. Cicadidae	Fam. 1. Cicadidae
Subf. 1. Tibiceninae		Subf. 1. Tibiceninae
	Subf. 1. Cicadinae	Subf. 2. Gaeaninae
Subf. 2. Cicadinae		Subf. 3. Cicadinae
Fam. 2. Tibicinidae	Subf. 2. Tibicininae	Fam. 2. Tibicinidae
Subf. 3. Tibicininae		Subf. 4. Tibicininae
Subf. 4. Tettigadinae	Fam. 2. Tettigadidae	Subf. 5. Tettigadinae
Subf. 5. Platypediinae	Fam. 3. Platypediidae	Subf. 6. Platypediinae
Subf. 6. Tettigarctinae	Fam. 4. Tettigarctidae	Subf. 7. Tettigarctinae

16. In preparing Fascicle VIII of the Catalogue of Homoptera after Metcalf's death at the beginning of 1956 considerable confusion arose in correlating Kato's 1956 classification with that of Metcalf in which Kato's subfamily Cicadinae (=Platypleurinae Schmidt 1919 and Handlirsch 1925 + Cicadinae Van Duzee 1916 (=Gaeaninae Distant)) had been split into three subfamilies, Tibiceninae, Gaeaninae and Cicadinae. Kato (1956) had arranged the tribes of his Cicadinae irrespective of their previous assignment to any one of the old family-groups of Distant, Van Duzee and Handlirsch. In Metcalf's catalogue when the tribes came to be distributed amongst the three subfamilies Tibiceninae, Gaeanini and Cicadinae Kato's erroneous arrangement was used and confusion resulted. Platylomiini and Lahugadini were placed in the Gaeaninae although they actually belong to the Tibiceninae. Pomponiaria attributed to Kato, 1932, based on *Pomponia* Stål also belongs to the Tibiceninae and is completely different from the Tribe Psithyristrini Distant under which it is placed as a subtribe. *Terpnosia* is also wrongly placed in the Tibiceninae and actually belongs to the Gaeaninae.

However, it is not the place here to discuss the relative merits of Kato's and Metcalf's taxonomic classification of the Cicadoidea. We are only concerned with the confusion among specialists and students which has been brought about by the mis-spelling of the similar names Tibiceninae and Tibicininae whether of family, subfamily or tribal status. The result of this confusion is well shown in Metcalf's Fascicle VIII Part 1 : 11 of the General Catalogue of Homoptera (1963). The Tibiceninae* (p. 11) of Distant, 1889, is actually a mis-spelling for Tibicininae and is based on *Tibicina* Kolenati, type-species *Cicada haematodes* Scopoli. Tibiceninae Karsch, 1893, is a mis-spelling of Tibicininae and comprises two genera *Trismarcha* Karsch and *Nablistes* Karsch both of which are placed by Metcalf correctly later in the Catalogue in the Tibicininae. Tibiceninae Kirkaldy, 1903, is another mis-spelling of Tibicininae and includes only *Lacetas* Karsch which Metcalf also correctly placed later in the Catalogue in the Tibicininae. Tibiceninae Goding & Froggatt, 1904, is also a mis-spelling of Tibicininae, for these authors state on p. 544 for this subfamily that the " sound organs are entirely uncovered ".

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* Tibiceninae is wrongly attributed to Atkinson, 1886, but Atkinson wrote "Tibicen" which is not a group-name and includes *Tibicen* and *Melampsalta* only.

Tibiceninae Jacobi, 1907, is used in a footnote on page 14 of Jacobi's paper only to point out that Tibiceninae Distant, 1889, is linguistically inadmissible for Tibicininae. On page 12, Metcalf cites Tibiceninae Kato but this is a reference to Distant's Tibiceninae, 1889, which as shown above was a mis-spelling to Tibicininae.

17. These examples are enough to show that the existence of two such similar names as Tibicininae and Tibiceninae is a continual future source of confusion in the nomenclature of the Cicadas.

The International Commission is therefore requested:

(1) to use its plenary powers to suppress the family-group name Tibiceninae Van Duzee, 1916, in favour of Platypleurinae Schmidt, 1918, type-genus *Platypleura* Amyot and Serville, 1843;

(2) to place on the Official List of Family-Group Names in Zoology the names:
  (a) Cicadidae Westwood, 1840, *Introd. mod. Classif. Ins.* **2** : 420 (Van Duzee, 1915) (type-genus *Cicada* Linnaeus 1758);
  (b) Platypleuridae Schmidt, 1918 (established as Platypleurini) (type-genus *Platypleura* Amyot & Serville, 1843;
  (c) Tibicinidae Distant, 1905 (established as Tibicininae) (type-genus *Tibicina* Kolenati, 1857);
  (d) Tettigadidae (correction of Tettigadesaria) Distant, 1906, *Syn. Cat. Homopt.* **1**, Cicadidae : 109 (type-genus *Tettigades* Amyot & Serville, 1843);
  (e) Platypediidae Kato, 1932, *Mon. Cicadidae* : 144 (type-genus *Platypedia* Uhler, 1888);
  (f) Tettigarctidae Distant, 1906 (correction of Tettigarctaria) (type-genus *Tettigarcta* White, 1845);

(3) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the names:
  (a) Tibiceninae Van Duzee, 1916 (suppressed under the plenary powers in (1) above (type-genus *Tibicen* Latreille in Berthold, 1827);
  (b) Cicadinae Distant, 1889, *Mon. Orient. Cicad.* : 3 (type-genus *Cicada* Distant, 1906, nec, Linnaeus, 1758).

(4) to place the following names on the Official List of Generic Names in Zoology:
  (a) *Cicada* Linnaeus, 1758 (gender : feminine) (type-species *Cicada orni* Linnaeus designated by Van Duzee, 1916);
  (b) *Tibicen* Latreille in Berthold, 1827, *in* Latreille, *Nat. Fam. Thierr.* : 426 (gender : masculine) (type-species by monotypy, *Cicada plebeia* Scopoli, 1763);
  (c) *Platypleura* Amyot & Serville, 1843, *Hist. nat. Ins., Hémipt.* : 465 (gender : feminine) (type-species, *Cicada stridula* Linnaeus, 1758, designated by Distant, 1906);

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(d) *Tibicina* Kolenati, 1857 (gender : feminine) (type-species by monotypy, *Cicada haematodes* Scopoli, 1763);
(e) *Tettigades* Amyot & Serville, 1843 (gender : masculine) (type-species by monotypy, *Tettigades chilensis* Amyot & Serville);
(f) *Platypedia* Uhler, 1888, *Ent. Amer.* **4** : 23 (gender : feminine) (type-species designated by Distant, 1906, *Cicada areolata* Uhler, 1861);
(g) *Tettigarcta* White, 1845, *in* Eyre, *J. Exped. Disc. cent. Australia*, **1**, App. : 433, Tab. 4, figs. 4 & 5 (gender : feminine) (type-species by monotypy, *Tettigarcta tomentosa* White, 1845);

(5) to place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology:[1]
(a) *Tettigia* Kolenati, 1857 (type-species by monotypy *Cicada orni* Linnaeus, 1758) (an objective synonym of *Cicada* Linnaeus, 1758);
(b) *Cicada* Distant, 1906, nec Linnaeus 1758 (objective synonym of *Tibicen* Latreille in Berthold, 1827);
(c) *Lyristes* Horvath, 1926 (type-species *Cicada plebeia* Scopoli, 1763, by original designation) (objective synonym of *Tibicen* Latreille in Berthold, 1827);

(6) to place the following names on the Official List of Specific Names in Zoology:
(a) *orni* Linnaeus, 1758, as published in the binomen *Cicada orni* (type-species of *Cicada* Linnaeus, 1758);
(b) *plebeia* Scopoli, 1763, *Ent. Carn.* : 117, 345, as published in the binomen *Cicada plebeia* (type-species of *Tibicen* Latreille in Berthold, 1827);
(c) *stridula* Linnaeus, 1758, as published in the binomen *Cicada stridula* (type-species, designated by Distant, 1906, of *Platypleura* Amyot & Serville, 1843);
(d) *haematodes* Scopoli, 1763, as published in the binomen *Cicada haematodes* (type-species by monotypy of *Tibicina* Kolenati 1857);
(e) *chilensis* Amyot & Serville, 1843, as published in the binomen *Tettigades chilensis* (type-species by monotypy of *Tettigades* Amyot & Serville, 1843);
(f) *areolata* Uhler, 1862, *Proc. Acad. nat. Sci. Philad.* **13** : 285, as published in the binomen *Cicada areolata* (type-species of *Platypedia* Uhler, 1888);
(g) *tomentosa* White, 1845, as published in the binomen *Tettigarcta tomentosa* (type-species of *Tettigarcta* White 1845).

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[1] *Tettigonia* Fabricius, 1775 (*Syst. Ent.:* 679) as a junior homonym of *Tettigonia* Linnaeus, 1758 (Orthoptera), has already been placed on the Official Index (Name No. 138) by Opinion 299. Its type-species is *Cicada tibicen* Fabricius, 1775 nec Linnaeus, 1758, designated by Kirkaldy 1900. This species has been renamed *Tibicen linnei* by Smith and Grossbeck, 1907. The true *Cicada tibicen* Linnaeus, 1758, is a South American species of the genus *Diceroprocta* Stål (= *Cicada* Distant, 1906 nec Linnaeus, 1758).

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

A. The Officers of the Commission

President: Dr. Alden H. Miller (*Museum of Vertebrate Zoology, University of California, Berkeley, California, U.S.A.*) (28 August 1963)
Vice-President: Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (28 August 1963)
Acting Secretary: Dr. W. E. CHINA (*British Museum* (*Natural History*), *Cromwell Road, London, S.W.*7) (21 May 1962)

B. The Members of the Commission

(*Arranged in order of election or of most recent re-election*)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16 December 1954)
Dr. Per BRINCK (*Lunds Universitets Zoologiska Institution, Lund, Sweden*) (19 May 1958)
Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (23 July 1958)
Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (23 July 1958)
Professor Pierre BONNET (*Université de Toulouse, France*) (23 July 1958)
Mr. Norman Denbigh RILEY (*British Museum* (*Natural History*), *London*) (23 July 1958)
Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (23 July 1958)
Professor Dr. Robert MERTENS (*Natur-museum u. Forschungs-Institut Senckenberg, Frankfurt a.m., Germany*) (23 July 1958)
Professor Dr. Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (23 July 1958)
Dr. D. V. OBRUCHEV (*Palaeontological Institute, Academy of Sciences, Moscow B*-71, *U.S.S.R.*) (5 November 1958)
Professor Tohru UCHIDA (*Department of Zoology, Hokkaido University, Japan*) (24 March 1959)
Professor Dr. Raphael ALVARADO (*Museo Nacional de Ciencias Naturales, Madrid, Spain*) (31 May 1960)
Dr. Gwilym Owen EVANS (*British Museum* (*Natural History*), *London*) (31 May 1960)
Dr. E. G. MUNROE (*Canada Department of Agriculture, Division of Entomology, Ottawa, Canada*) (9 June 1961)
Dr. N. S. BORCHSENIUS (*Institute of Zoology, Academy of Sciences, Leningrad B*-164, *U.S.S.R.*) (28 September 1961)
Dr. W. E. CHINA (*British Museum* (*Natural History*), *London*) (21 May 1962) (*Acting Secretary*)
Professor E. BINDER (*Muséum d'Histoire Naturelle, Geneva, Switzerland*) (21 May 1962)
Professor Dr. Afranio do AMARAL (*Instituto Butantan, Sao Paulo, Brazil*) (28 August 1963)
Professor Harold E. VOKES (*University of Tulane, Department of Geology, New Orleans, Louisana, U.S.A.*) (28 August 1963)
Dr. Norman R. STOLL (*Rockefeller Institute, New York, N.Y., U.S.A.*) (28 August 1963) (*Councillor*)
Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (28 August 1963) (*Vice-President*)
Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, Berkeley, California, U.S.A.*) (28 August 1963) (*President*)
Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (28 August 1963) (*Councillor*)
Dr. J. FOREST (*Muséum National d'Histoire Naturelle, Paris, France*) (28 August 1963) (*Councillor*)
Dr. Carl L. HUBBS (*Scripps Institution of Oceanography, University of California, La Jolla California, U.S.A.*) (28 August 1963)
Dr. Otto KRAUS (*Senckenbergische Naturforschende Gesellschaft, Frankfurt a.M., Germany*) (28 August 1963)
Dr. W. D. L. RIDE (*Western Australian Museum, Perth, Western Australia*) (28 August 1963)
Mr. C. W. SABROSKY (*U.S. Department of Agriculture, Entomology Research Division, Washington, D.C., U.S.A.*) (28 August 1963)
Professor George Gaylord SIMPSON (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (28 August 1963)

BULLETIN OF ZOOLOGICAL NOMENCLATURE

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NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission fo its plenary powers is involved in the following applications published in the present part of the *Bulletin:*—

(1) Designation of a type-species for *Lingula* Bruguière, [1797] (Brachiopoda) Z.N.(S.) 1598.

(2) Validation of the generic name *Axopora* Milne Edwards & Haime, 1850 (Hydrozoa). Z.N.(S.) 1610.

(3) Validation of a neotype for *Cancer setiferus* Linnaeus, 1767 (Crustacea, Decapoda). Z.N.(S.) 1617.

(4) Designation of type-species for *Purpura* Bruguière, 1789 and *Muricanthus* Swainson, 1840; validation of *Ocenebra* Gray, 1847; validation of THAISIDAE Suter, 1913 (Gastropoda). Z.N.(S.) 1621.

(5) Suppression of *Certhia chrysotis* Latham, 1801 (Aves). Z.N.(S.) 1653.

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
9 *June* 1964.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature

REPORT BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE
to the XVIth International Congress of Zoology,
Washington, 1963

The following is, in substance, the Report submitted by the International Commission on Zoological Nomenclature, to the XVIth International Congress of Zoology, through the Section on Nomenclature of that Congress. This Report consists of two parts (1) the Report of the work of the International Commission on Zoological Nomenclature between 1958 and 1963 and (2) the minutes of the meetings of the Commission prior to and during the Congress at Washington.

This Report was duly approved by the Section on Nomenclature at its meeting on 23 August 1963.

I REPORT ON THE WORK CARRIED OUT BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE IN THE FIVE YEAR PERIOD 1958–1963.

By W. E. China (Acting Secretary, *International Commission on Zoological Nomenclature*)

(1) The period in question begins in London with the Closing Address of Sir Gavin de Beer, President of the XVth International Congress of Zoology, on 23 July 1958. The President pointed out that an Editorial Committee had been set up to prepare for publication the Text of the International Code of Zoological Nomenclature which had been prepared and agreed upon by the Colloquium on Zoological Nomenclature. The President also informed the Plenary Session that the International Commission on Zoological Nomenclature had recommended that its work in future should be conducted on the basis of a centralised office with a permanent salaried secretary and staff without prejudice to its location or the nationality of its staff; that immediate action be taken to reduce the bulk and cost of the publications and that steps be taken for the establishment of an International Association for Zoological Nomenclature. The Commission also recommended that its own By-laws be re-examined with a view to amending them in the light of existing conditions and a By-laws Committee was set up to carry out this task.

All these recommendations were approved by Congress during the Final Plenary Session.

(2) As you all know, the work of the Editorial Committee leading up to the publication of the Code in November 1961, is ably recorded by Commissioner Stoll, Chairman of the Committee, in his Introduction to the Code. The Commission must always be grateful for the painstaking efforts of the Editorial Committee and indeed to all those who took an active part in work leading to the publication of the Code. Over 4,000 copies have now been sold and

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translations have been made in Japan, Czechoslovakia, Germany, Poland, Spain and Mexico.

(3) The Draft Constitution prepared by the By-laws Committee, Dr. K. H. L. Key, Prof. H. Boschma and Prof. Ernst Mayr (Chairman) was submitted to the Commission on 26 August 1959, and was duly published in the *Bulletin* Vol. 19, pp. 358–364 followed by an Addendum containing suggested additions and amendments by the President of the Commission, Prof. J. Chester Bradley, supported by Dr. A. do Amaral, Vice-President and the Hon. Secretary, Mr. N. D. Riley.

A working draft of the proposed By-laws based on a combination of the original draft and the President's suggested amendments, (Doc. A) has been prepared and circulated to those present to assist in the discussion which will follow later.

(4) Mr. R. V. Melville, who had been appointed Assistant Secretary of the Commission and Assistant Manager of the Trust on the retirement of Mr. Hemming, played a leading part in the affairs of the Commission after the Congress. As Secretary of the Editorial Committee, he was largely responsible for advising the Committee on the numerous decisions of the Colloquium and as Assistant Secretary of the Commission under Mr. Secretary N. D. Riley he was responsible for the routine management of the Secretariat involving the preparation of Applications for publication in the *Bulletin*, the organization of voting by the Commissioners and the promulgation of their Opinions. In December 1959, he returned to his palaeontological work on the Geological survey of the U.K. His place was taken by the present Acting Secretary, then Keeper of Entomology at the British Museum (Nat. Hist.) in succession to Mr. Riley. Melville continued to co-operate in editing the *Bulletin of Zoological Nomenclature* and especially in seeing the new Code through the press. Eventually he left the Geological Survey in 1960 and went to Paris as Scientific Attaché at the British Embassy.

(5) In 1959, the Trustees of the British Museum (Natural History) allocated accommodation in the Museum for the Commission's Office. Not only was this a financial gain more than equivalent to the £250 a year rent previously paid by the Trust for modest accommodation in London, but the unique library facilities and wide range of specialist advice available, were of the utmost value to the Secretariat. Great saving in time and correspondence resulted and altogether the generosity of the Museum Trustees was equivalent to an estimated annual subvention of $2,000.

(6) Steps were taken under Messrs. Riley and Melville to implement the recommendation by the XVth Congress that the bulk and sale price of the *Bulletin* should be reduced. From 1959 onwards the separate publication of the *Opinions and Declarations* series ceased and it was incorporated into the *Bulletin*, the annual price of which has been reduced from £88 in 1958 for Applications, Comments, Opinions, Declarations, Directions and Matter for discussion at the XVth Congress to £18 in 1962 for similar coverage. Naturally if the annual cost is to be fixed then the number of Applications, Comments, Opinions etc. published each year must be kept within bounds. In 1962, starting with Vol. 19, part 5, the size of each part of the *Bulletin* was increased from 64

pages to 80 pages without increasing the price. It is hoped by more economies still further to increase the number of cases published each year for the same cost to the subscriber.

(7) In view of the great changes that have been made in the style of the Commission's publications it has been felt that the formation of an International Association for Zoological Nomenclature recommended at the XVth Congress in 1958 was now un-necessary. Lord Hurcomb, Chairman of the International Trust, had warned the Commission in July 1958, (*Bull. Zool. Nomencl.* **15** (40), Document B. p. xxxiii) of the danger of disrupting the present organisation and Sir Gavin de Beer, President of the XVth Congress, had pointed out to the Commission, financial difficulties involved in such a scheme.

The Executive Committee of the Commission therefore decided to go ahead with the existing system, where the Commission is financed by the International Trust, which has proved so successful. I think that the Commission will agree that the continuation of the present arrangement should be recommended to Congress for approval.

(8) *Personnel:*

(1) Losses through death. It is with great regret that we have to record that since its Session in London in July 1958, the Commission has suffered the loss through death of:

(a) their Honorary Life President, Dr. Karl Jordan, who died at the great age of 97 on 12 January 1959. An obituary was published in the *Bulletin of Zoological Nomenclature* (**17** : 259–266);

(b) Commissioner Prof. F. S. Bodenheimer (Israel) who died most unexpectedly in London on 4 October 1959;

(c) Commissioner Prof. Béla Hankó (Hungary) who also died suddenly in Toronto, on 16 November 1959;

(d) Commissioner Dr. Angel Cabrera (Argentina) who died at La Plata on 7 July 1960, aged 81;

(2) Losses through resignation:

During the period under review the Commission suffered the loss of two Commissioners by resignation: On 9 June 1961, Commissioner Prof. J. R. Dymond (Canada) tendered his resignation which was accepted. Prof. Dymond had for a long time intimated his intention of doing so but had been persuaded to stay on beyond his time.

On 23 October 1962, Commissioner Dr. Max Poll (Belgium) tendered his resignation which was accepted with regret by the Executive Committee.

Prof. J. Chester Bradley has also submitted his resignation both from the Presidency and as Commissioner to take effect from the end of this Congress;

It is convenient to report here the case of Commissioner Dr. Ferdinand Prantl (Czechoslovakia). For some time the Secretariat received no communication from him and in 1962 it learnt that Dr. Prantl had been imprisoned. He was placed on extended leave of absence while steps were taken to determine whether or not his imprisonment was due to political reasons since, according to the Constitution, such imprisonment did not warrant expulsion from the Commission. All attempts to find out the reason for Prantl's imprisonment having failed it would be realistic if the

Commission were to decide to replace him, since a Commissioner to be effective must be a *persona grata* with his own government.

(3) Elections to the Commission during the period 1958–1963. Elections of of Commissioners during the period under review were:

- (a) Dr. Dmitri Obruchev, (Professor of Palaeontology, Academy of Sciences, U.S.S.R.) 5 November 1958;
- (b) Dr. Tohru Uchida, (Professor of Zoology, Hokkaido University, Sapporo, Japan) 24 March 1959;
- (c) Dr. G. O. Evans (British Museum (Nat. Hist.) London, Acarologist) 31 May 1960 (to replace Commissioner Prof. P. C. Sylvester-Bradley who resigned);
- (b) Prof. Dr. Raphael Alvarado, (Museo Nacional de Ciencias Naturales, Madrid, Invertebrate Zoologist) to represent Spain (31 May 1960);
- (e) Dr. E. G. Munroe, (Research Officer, Entomology Research Institute, Dept. of Agriculture, Ottawa) nominated by the National Research Council and the Royal Society of Canada to replace Commissioner Prof. Dymond (9 June 1961);
- (f) Dr. N. S. Borchsenius, (Assistant Director, Institute of Zoology, Academy of Sciences, U.S.S.R. Leningrad, Coccidologist) nominated by the Zoological Institute, Academy of Sciences, U.S.S.R. 28 September 1961;
- (g) Prof. Dr. E. Binder (Natural History Museum, Geneva, Switzerland, malacologist) nominated by the Swiss Academy of Natural Sciences (21 May 1962);
- (h) Dr. W. E. China, C.B.E., Assistant Secretary to the Commission and formerly Keeper, Dept. of Entomology, British Museum (Nat. Hist.) London, (Hemipterist) elected Commissioner-at-large by the Executive Committee.

The position now is that there are 26 Commissioners representing 18 different countries with 2 Commissioners-at-large, Prof. Ernst Mayr and myself.

(4) Change of Secretaryship:

On 30 June 1962, Mr. N. D. Riley C.B.E., Honorary Secretary of the Commission, expressed a wish to resign and Dr. W. E. China, Assistant Secretary, agreed to take his place as Acting Secretary until a new Honorary Secretary could be elected by the Commission at the present Congress.

(5) Retirement of Commissioners:

According to the Constitution, the senior third of all Commissioners are due to retire at the end of this Congress. These may offer themselves for re-election if they wish, and if the Commission agrees.

9. *Publications:*

Since the last Congress, 110 Opinions, 2 Directions, 238 new applications from zoologists and 127 comments have been dealt with and published in the *Bulletin of Zoological Nomenclature*. In addition, 50 Opinions and 2 Declarations were published in the Opinions and Declarations series before that series was brought to a close.

Although this is considerably less than in the preceding five years under Mr. Secretary Hemming's direction the cost to the subscriber has been correspondingly less. It has become obvious that there is a limit to the number of applications which can be published if the annual cost is not to be oppressive.

The Declarations which according to the Constitution must be reported to Congress are:

(a) No. 40, which was issued on 15 October 1958, declared that " Generic names having the termination '-ides,' '-ites,' or '-oides' are to be treated as being masculine in gender."

Although technically not issued until after the XVth Congress, Declaration 40 was reported to the Congress by Assistant Secretary, R. V. Melville, and was ultimately incorporated in the New Code in Article 30(a) (4) (ii) on page 33. It does not need the approval of the XVIth Congress.

(b) No. 41 which was issued on 15 October 1958, declared " Where in a work written in the Latin language a Latin word is used in such a way as to be capable of bearing the interpretation that it is there employed as a generic, specific or subspecific name duly formed in accordance with the provisions of the Règles, the word in question is to be so interpreted, save where such an interpretation is clearly excluded by the content."

This Declaration although actually issued after the XVth Congress was reported to that Congress by Mr. R. V. Melville, Assistant Secretary. The Colloquium agreed that Declaration 41 should be incorporated into Article 6, Sect. 1 of Prof. J. Chester Bradley's draft English text of the revised Code. Article 6, Section 1 is equivalent to Chapter 4 in the New Code and Declaration 41 should have been incorporated in Article 11(b). This does not appear to have been done and the Commission must recommend to Congress that Declaration 41 should be approved or disapproved.

II MINUTES OF THE MEETINGS OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, WASHINGTON, 1963.

The Commission met in public session in the Main Ball Room of the Shoreham Hotel on Monday the 19, Tuesday the 20 and Wednesday the 21 August and in private session on Thursday 22 August.

The following nineteen (19) members of the Commission were in attendance: Alvarado (Spain), Vice President do Amaral (Brazil), Binder (Switzerland), President Bradley (U.S.A.), Brinck (Sweden) Acting Secretary China (at Large), Evans (U.K.), Holthuis (Netherlands), Key (Australia), Kühnelt (Austria), Lemche (Denmark), Mayr (at Large), Miller (U.S.A.), Munroe (Canada), Riley (U.K.), Stoll (U.S.A.), Tortonese (Italy), Uchida (Japan), Vokes (U.S.A.).

1. **The President** (in the Chair) in welcoming guests, pointed out that action was confined to the Commission, and while guests could speak they could not vote, although straw votes might be taken to give the feeling of the meeting.

2. **Alternate Commissioners** were elected to represent absent Commissioners as follows:

Mr. Sabrosky (U.S.A.) as alternate for Dr. Borchsenius (U.S.S.R.).
Dr. Brongersma (Netherlands) as alternate for Dr. Boschma (Netherlands).
Mr. Whalley (U.K.) as alternate for Mr. Hemming (U.K.).
Dr. Klausewitz (Germany) as alternate for Dr. Hering (Germany).
Dr. Szarski (Poland) as alternate for Dr. Jaczewski (Poland).
Dr. Kraus (Germany) as alternate for Dr. Mertens (Germany).
Dr. Svetovidov (U.S.S.R.) as alternate for Dr. Obruchev (U.S.S.R.).
Dr. Jacot-Guillarmod (S. Africa) as alternate for Dr. Prantl (Czechoslovakia).

3. **The Report of the Secretary** on the work carried out during the inter-Congress period, having been circulated, was adopted without being read.

4. **Reports of Committees.**

(a) **Committee on National Representation** (Munroe (Chairman), Lemche and Holthuis). [See Appendix 1]. The Report was presented by Dr. Munroe. Dr. Key proposed that this Report should be accepted, rather than adopted, so that the Commission should not be bound when considering the Constitution. The Commission received the Report with thanks.

(b) **Committee to Study Parataxa** (Moore (Chairman), Sylvester-Bradley, Walton and Yochelson). [See Appendix 2]. The Report was presented by Prof. R. C. Moore, and it was pointed out that Professor P. C. Sylvester-Bradley, a member of the Committee, was in disagreement with the recommendations. The Report was adopted.

(c) **Committee on Resolutions** (China, (Chairman), do Amaral, Miller and Holthuis). [See Appendix 3]. Resolutions of appreciation of, and thanks for, the services of Mr. N. D. Riley, Mr. R. V. Melville, Prof. J. Chester Bradley, the Editorial Committee of the Code and Mr. C. W. Sabrosky were read by the Secretary. The resolutions were adopted with acclamation.

(d) **By-Laws Committee** (Mayr (Chairman), Key, Boschma.) It was, for the time being, noted that the Committee's Report had been published in *Bull. zool. Nomencl.* **19** : 358–362, and would be considered in detail later in the meeting.

5. **Amendments to the Code.**

(a) Dr. Key put forward a motion:

> " that, in view of the supreme importance of developing and maintaining confidence among zoologists in the stability of the International Code of Zoological Nomenclature, the Commission should recommend to the Sixteenth Congress no amendments to the Code, other than such as may be essential to prevent catastrophic consequences for nomenclature that cannot be prevented by other accepted methods, for example, by the issue of appropriate interpretive Declarations."

This motion was opposed by the President who gave the following reasons:

(i) The By-Laws state that amendments will not be considered unless proposed 12 months in advance of a meeting, the implication being that if proposed 12 months or more in advance such amendments will be considered;

(ii) amendment of the Code is one of the duties of the Commission as laid down in the By-Laws and this duty cannot be avoided;

(iii) the invitation to zoologists to attend the meetings of the Commission had had a large reponse because the general zoological public was interested in the proposed amendments, and therefore the Commission had a duty to consider those amendments.

Dr. Key explained that it was not his intention to prevent discussion of the proposed amendments, but only to establish general criteria by which such proposals should be judged. Dr. Key's motion was supported by Dr. Stoll, who observed that niceties of wording should not be considered as amendments in open meeting, but should be put before the Commission by a postal vote, and issued as Declarations after proper consideration after the Congress. A letter of support for the motion from Mr. Hemming and a letter of opposition from Mr. dos Passos were read by the Secretary.

Professor Bradley pointed out that, according to the Code, Declarations may not be interpretive statements, but are amendments of the Code, made to meet a particular case. A straw vote amongst the guests showed that they were not in favour of Dr. Key's proposal. The President ruled that Dr. Key's motion was out of order. Dr. Key, seconded by Dr. Miller, dissented from this ruling. The Chair was overruled by 11 votes to 9.

Dr. Key's motion, when put to the vote, was defeated by 12 votes to 7.

(b) **Published proposals.**

Case 1. Request for a clarification of Article 40 (*Bull. zool. Nomencl.* **19** : 337).

Professor Mayr commented that if the motion were adopted there would be a major change in the Code as decided at London and Copenhagen, and Dr. China that if this proposal were adopted, many names would have to be changed. The motion was withdrawn in favour of a motion by Dr. China that:

> "Well-known and commonly used family-group names should prevail irrespective of age of type-genera or of priority of group-name. When a disagreement arises over current usage the problem is to be submitted to the Commission for a majority vote."

It was decided by the Commission that this proposal be referred to the Secretariat for further study with a view to a possible Declaration.

Case 2. Request for a change in the Code provisions on family-group names (*Bull. zool. Nomencl.* **19** : 338–344).

It was explained by Mr. Sabrosky that the provisions dealing with availability of family-group names had in the new Code been made retroactive by 30 years. Mr. Riley observed that a simple way of dealing with the problem would be to add to Article 13a a paragraph (iv) that "The provisions of this section apply to family-group names published after 31 December 1965." The proposals of both Dr. Temple and Mr. Riley were defeated.

Case 3. Concerning the Statute of Limitation (*Bull. zool. Nomencl.* **19** : 345–352, **20** : 79–80).

It was decided that proposals of amendment of Article 23b should be considered before proposals for the deletion of that Article.

(i) Professor Bradley withdrew his published motion and substituted the following:

> " If a zoologist discovers that a name, usually used for a taxon and otherwise valid, is an objective junior synonym of another name which no author had adopted during the fifty years preceding the discovery of the synonymy, he should apply to the Commission to invalidate the senior synonym by the use of its plenary powers for the purpose of priority but not of homonymy.
>
> "This amendment shall not affect any action already taken and published under the provision which it replaces."

Professor Mayr pointed out that the Bradley proposal restricted the application of Article 23b to objective synonyms and the use of the plenary powers. All the valuable part of the steps taken in Copenhagen and London were thus lost and, moreover, the plenary powers of the Commission would also appear to be restricted by this wording. The practical result of the adoption of such a motion would be complete rejection of Article 23b as it stands at present. Professor Bradley, in reply, expressed his willingness to delete from his motion the words " by the use of its plenary powers."

(ii) Professor Smith's proposal was discussed and Professor Bradley pointed out that it restricted the action of Article 23b to cases where the junior synonym had been used for 50 years—in his opinion a questionable reading.

(iii) Dr. Key moved that the Commission be asked to adopt, subsequent to the Congress, an interpretive Declaration on Article 23b, taking into consideration the following draft:

" (1) The expression " unused as a senior synonym " implies that a junior synonym was in existence throughout the period concerned (otherwise the senior name could not be designated a " synonym "), although the state of synonymy need not (and ordinarily would not) have been recognized as such.

(2) Use in the " primary zoological literature " should be taken to mean application of the name in question to a particular taxon in a zoological publication. It does not include citation of the name in synonymy, or mere listing of the name in any abstracting publication, index, catalogue, check-list, or nomenclator.

(3) The expression " for more than fifty years " should be read to mean " for more than fifty years during which a junior synonym had been used on ten or more occasions in the primary literature for the taxon concerned;

(5) The word " discovers " must be rigidly construed: i.e., it implies that the name discovered after 1960 had remained unused during the whole of the 50-year period immediately preceding its ' discovery.'

(5) Use of a *nomen oblitum* in the primary literature in violation of Article 23b does not qualify as use for the purpose of the Article.

(6) Article 23b(i) clearly gives the Commission the authority (without invoking its plenary powers) to suppress a *nomen oblitum* for the purposes of the Law of Priority, the Law of Homonymy, or both, or alternatively to validate it. However, it should not be read as imposing an obligation on the Commission to replace a rejected *nomen oblitum* on the appropriate Official Index."

It was suggested by Dr. Eisenmann that " check-lists and catalogues " should be removed from paragraph (2) of this draft; that " after 1960 " be added between " use " and " nomen oblitum " in paragraph (5); and that " by three or more authors " be added at the end of paragraph (3);

(iv) A further possible wording of Article 23b was introduced by Mr. Sabrosky:

> " If an author discovers that a name, unused and not adopted for a given taxon during the preceding 100 years, is actually the senior synonym of an important name in current use, he shall treat the long unused name as a forgotten name (*nomen oblitum*), not to be used [except for the Law of Homonymy]."

Dr. Munroe considered (1) that any period of time incorporated within the Statute of Limitation would be wrong for some groups of animals. The period could possibly be varied in different groups; (2) that rather than insert a reference time from the present it might be better to insert a date, such as 1910, or 1860—this to be revised from time to time.

Dr. Holthuis agreed with Mr. Sabrosky's proposed 100 years limit, but considered that names should be brought before the Commission for rejection.

Dr. Miller moved that it would be well to broaden Dr. Key's motion to include consideration of the proposals of Mr. Sabrosky and Dr. Holthuis. The Secretariat could draft a substantive proposal from all these. Dr. Miller later withdrew his motion when it was pointed out that while Dr. Key's proposal was designed specifically to operate within the present form of Article 23b, Mr. Sabrosky's was a definite proposal for amendment of the Article.

Dr. Key's motion was rejected by 11 votes to 10. Mr. Sabrosky withdrew his proposal.

(v) Dr. Lemche moved that the Secretariat be charged to test Article 23b as explained by Dr. Key and refer back to the Commission as to how that Article should be amended and modified by means of a Declaration. This proposal was accepted by the Commission by 14 votes to 7.

The motion for the deletion of Article 23b was then put by the Chair and was defeated by 11 votes to 10.

Case 4. Amendments proposed to facilitate the adding of family-group names to the Official List [*Bull. zool. Nomencl.* **19 :** 353–354).

The proposal was rejected on the grounds that the conservation of family-group names was already covered, in as much as this was desirable, by Articles 23d and 40 of the present Code.

Case 5. Request for clarification of Article 59 on Secondary Homonyms (*Bull. zool. Nomencl.* **20 :** 41–43).

(i) The motion for deletion of Article 59c was defeated.

(ii) A motion put by Dr. Herschkovitz for the deletion from Article 59c of the words " after 1960 " was defeated.

(iii) Of the two alternative opinions on what constitutes secondary homonymy offered by the Committee on Nomenclature of the Entomological Society of America, the Commission gave its opinion that Alternative B was the meaning of the Code in Articles 57 and 59b, and instructed that an interpretive Declaration should be prepared to this effect.

Case 6. Request for revision of the 1961 Code to include directives relative to nomina dubia (*Bull. zool. Nomencl.* **20** : 44) and

Case 7. Request for revision of certain definitions in the 1961 Code (*Bull. zool. Nomencl.* **20** : 45–48).

Since no definite proposals for amendment of the Code had been submitted in either case, no action was taken.

Case 8. Request for extension and consolidation of the first-reviser principle in revision of the 1961 Code (*Bull. zool. Nomencl.* **20** : 49–51).

(i) Having discussed the motions of Professor Smith and Professor Mayr on the subject of names given to hydrids the Commission gave its opinion that: The word " available " in Article 17(2) with respect to the name of a hybrid refers to homonymy, but that such a name must not be applied to either of the parental species. The Secretariat was instructed to prepare an interpretive Declaration to this effect.

(ii) Having considered the question of Dr. Holthuis with regard to the restriction of type localities (circulated) the Commission gave its opinion that: The first published designation of a lectotype from among the syntypes of a species supersedes all previous restriction of the taxonomic species, such as may result from a restriction of the type locality. The Secretariat was instructed to prepare an interpretive Declaration to this effect.

Case 9. Request for inclusion in Article 79 of the 1961 Code of a provision for suppression of names for purposes of the Law of Homonymy alone (*Bull. zool. Nomencl.* **20** : 52).

The Commission rejected the motion on the grounds that it was unnecessary and undesirable to attempt to specify in the Code all the possible ways in which the Commission might use its plenary powers.

Case 10. Request for revision of Articles 68 and 69 on type-fixation for genera (*Bull. zool. Nomencl.* **20** : 53–54).

No action was taken.

Case 11. The status of names published in an index (*Bull. zool. Nomencl.* **20** : 55).

The proposal was rejected.

Case 12. Request for reconsideration of categories of types of species and subspecies recognized by the International Code (*Bull. zool. Nomencl.* **20** : 56–60).

The proposal was rejected.

Case 13. Request for amendment of the International Code to prescribe the treatment of a species-group name that is both noun and adjective (*Bull. zool. Nomencl.* **20** : 61–62).

The Secretariat was charged to prepare a Declaration in accordance with the proposals of Follett and Dempster.

Case 14. Proposal for reconsideration of the hierarchy of nomenclatural status of generic and trivial names as recognized in the Code of Zoological Nomenclature (*Bull. zool. Nomencl.* **20** : 63–66).

No action was taken.

Case 15. The status of infrasubspecific names (*Bull. zool. Nomencl.* **20** : 67–70).

The proposal was defeated after a very full discussion.

Case 16. A name first published as a synonym is not thereby made available. (*Bull. zool. Nomencl.* **20** : 70).

The motion was accepted in principle. The following wording, submitted by Mr. Sabrosky and Dr. Herschkovitz at the request of the Commission, was later adopted as an amendment to Article 11d of the Code:

> " A name first published as a synonym is not thereby made available unless prior to 1961 it has been treated as an available name with its original date and authorship, and either adopted as the name of a taxon or used as a senior homonym."

> " Un nom publié pour la première fois comme un synonyme n'est pas utilisable de ce fait, à moins que, avant 1961, il n'ait été traité comme un nom utilisable avec sa date et son auteur originels, et soit adopté comme le nom d'un taxon soit employé comme, un homonyme plus ancien."

Case 17. Neotypes (*Bull. zool. Nomencl.* **20** : 71–72).

Dr. Munroe put forward proposals for the less drastic revision of Article 75 as follows: (1) delete " exceptional circumstance " in Article 75a and 75a(i) and relate Article 75a(i) to the phrase " necessary for stability in nomenclature " in Article 75a; (2) the phrase "does not arouse objections" in Recommendation 75a should be softened; (3) A provision allowing a neotype to replace a lost lectotype should be included in Article 75c.

Mr. dos Passos' motion was defeated.

A motion of Dr. Munroe that the Commission agrees in principle that Article 75 is too rigorous, and refers the Article to the Secretariat for redrafting as a Declaration was carried.

Case 18. Request for amendment of the International Code to provide a single gender for all generic names ending in -ops. (*Bull. zool. Nomencl.* **20** : 73)

The Secretariat was charged to prepare a Declaration providing that all generic names ending in *-ops* are to be masculine in gender.

Case 19. Continuity—Article 39a (*Bull. zool. Nomencl.* **20** : 74).

In accordance with the proposals of Dr. Holthuis and the Committee on Nomenclature of the Entomological Society of America, Article 39a was deleted from the Code.

Case 20. Citation of an objective synonym of one of the originally included species as type of a genus (*Bull. zool. Nomencl.* **20** : 75).

The proposal was defeated.

Case 21. Proposal for clarification of Article 33 (*Bull. zool. Nomencl.* **20** : 76).

The Commission considered that the words " demonstrably intentional " in Article 33a were sufficiently clear, and that it would be undesirable to lay down particular criteria as to what demonstrates intent. The proposal was rejected.

Case 22. Miscellaneous Proposals (*Bull. zool. Nomencl.* **20** : 77–79).

Document 22/1. The proposals were rejected after discussion. A motion by Dr. Hershkovitz to delete the Example to Article 23e(iii) was also rejected.

Document 22/2. The Commission agreed that a committee be appointed to examine the Code with reference to all provisions concerning citation with a view to making them recommendations.

Document 22/3.

(i) Defeated under Case 3.
(ii) Withdrawn.
(iii) Proposal defeated.
(iv) Proposal defeated.
(v) Withdrawn.
(vi) Proposal defeated.

Document 22/4. Professor J. Chester Bradley (in a document circulated to the meeting) proposed the following amendments to the Code:

(i) to add to Article 61 a second paragraph to read, " Types are to be recognized only for nominal taxa the names of which are available."
(ii) to insert the word " available " before " name " in line 2 of Article 67(i), and to add here or at another appropriate place " If a zoologist proposed a new generic name expressly as a replacement for a prior name, but the latter name is not available under the provisions of Article 11 *et. seq.*, then that zoologist has established either a nomen nudum, or a new nominal taxon, according to whether he has provided the data necessary to make the name available."

The proposals were rejected as unnecessary on the grounds that an unavailable name does not constitute a nominal taxon.

(c) **Proposals presented to the meeting.**

(i) In a paper circulated to the meeting, the Standing Committee on Ornithological Nomenclature of the International Congress presented the following proposal for the amendment of the Code:

" Article 31 should become a mere Recommendation, with the words ' must end ' changed to ' should usually end.' Article 31a should be omitted altogether. In Article 32a(i), b and c, all references to emendation for failure to comply with Article 31, should be omitted by substituting for ' 31 ' the number ' 30.' "

The Chairman used his casting vote to receive this motion, which was carried. Article 31 of the Code should now therefore read:

Recommendation 31. Species-group names formed from modern personal names. A species-group name, if a noun formed from a modern personal name, should usually end in *-i* if the personal name is that of a man, *-orum* if of men or of man (men) and woman (women) together, *-ae* if of a woman, and *-arum* if of women [see Article 11g(i)(3) and Appendix D III]."

Recommendation 31. Noms du groupe-espèce formés sur des noms modernes de personnes. Lorsqu'un nom du group-espèce est un substantif formé sur un nom moderne de personne, il devrait habituellement finir en *-i* si le nom de personne est celui d'un homme, en *-orum* si c'est celui de plusieurs hommes ou d'hommes et de femmes ensemble, en *-ae* si c'est celui d'une femme, et en *-arum* si c'est celui de plusieurs femmes [voir Article 11g(i)(3) et Appendice D III].

Article 31a is deleted.

The words " Articles 26–31 " throughout Article 32 should be substituted by " Articles 26–30."

(ii) A proposal presented by Carlton M. Herman, editor of *Wildlife Disease*, concerning the status of microfilm and microcards under Article 8 was tabled.

(iii) A proposal presented by Professor Bradley concerning the status of decisions taken under previous Codes was tabled.

(iv) The Commission took note that Article 11b of the Code was a substantive change from the corresponding provision in previous Codes and directed that the Secretariat should prepare a Declaration providing that a name which is not an arbitrary combination of letters, but which is treated as a Latin word, should be available.

(v) The Commission agreed on a motion of Mr. Sabrosky that the Code Articles 77 and 78 should be amended by a Declaration to admit interpretive statements to the class of Declarations.

(vi) Various proposals presented by Miss Lois K. Smith (Canada) just before the meeting commenced, were received too late for consideration.

6. **Translations of the Code.**

(a) The Commission requested that Dr. J. Forest should prepare the French text of amendments which had been made to the Code at the meeting. Dr. Forest agreed.

(b) A motion that the German text of Dr. O. Kraus and the Spanish text of Dr. A. Alvarado were to be regarded as " authorized translations " of the Code was unanimously adopted. The Vice-President of the Commission, Dr. A. do Amaral, was authorized to translate the Code into Portuguese.

7. **The Constitution.**

The Report of the By-Laws committee appointed by the XVth International Congress of Zoology was carefully considered by the Commission. The Constitution adopted as a result of this consideration is appended to this report [Appendix 4] and will eventually be published as an annexe to the Code. The Commission considered that at some future date Chapter XVII of the Code should become a part of the Constitution, so that the Constitution did not appear to derive its authority from the Code but vice versa.

8. **Other Business.**

(a) **Official Indexes.** The Commission agreed with a motion of Dr. Key that " the Commission shall not place any name on an Official Index where there is any risk that the name may be revived."

(b) **Completeness of Decision.** The Commission agreed with a motion of Dr. Key that " the Commission should not insist on 'completeness' in decisions where this might involve interested parties in substantial and considerable work or appreciably delay a Ruling."

(c) **The Commission's By-Laws.** The Commission agreed that Dr. Mayr should prepare a draft of the Commission's By-Laws and circulate this to all Commissioners for their comments. When comments had been considered and the draft, if necessary, revised, the Commission should vote to adopt the draft which would then come into force and would be published in the *Bulletin of Zoological Nomenclature.*

(d) **Official Lists.** The Commission agreed that some suitable method should be found of publishing annual supplements to the Official Lists and, possibly, to the Official Indexes.

(e) At its closed meeting on 22 August the Commission expressed its intention:

(1) of issuing a Declaration emending Art. 11b to read, " The name must be either Latin or latinized or treated as such, or, if an arbitrary combination of letters, must be so constructed that it can be treated as a Latin word;

(2) of issuing a Declaration to amend the Code Articles dealing with Declarations so that a Declaration may be both interpretive of, and amendment to, the Code.

9. **Election.**

Under the existing By-Laws of the Commission one-third of the seats on the Commission automatically fall vacant at the close of each Congress. Under this Rule the seats to be vacated were occupied by the following ten (10) Commissioners: do Amaral, Bradley, Vokes, Stoll, Holthuis, Key, Miller, Prantl, Kühnelt, Mayr.

After careful consideration the Commission nominated the following for election or re-election to the Commission by the Congress:

do Amaral, Vokes, Stoll, Holthuis, Miller, Mayr, Ride, Kraus, Hubbs, Sabrosky, Forest, Simpson.

The Commission did not hold election of officers, but postponed action until the new Constitution is in force.

10. **Appreciation.**

At the close of its meetings the Commission expressed greetings to its former Secretary, Mr. Francis Hemming, and, having heard of his recent illness, the hope that his recovery would be rapid and complete.

Commissioner Mayr, speaking on behalf of the Commission, expressed his immense gratitude to the retiring President, Professor J. Chester Bradley, for all he accomplished during his very difficult years of office. Commissioner Mayr's appreciation was received with acclamation.

Appendix I

REPORT OF THE NATIONAL REPRESENTATION COMMITTEE

18 AUGUST 1963

The Committee was unanimously of the opinion that national representation was not a valid reason for election of a Commissioner, and that acceptance of such a basis would open the way to grave abuses. Commissioners should consider themselves representatives of science and not of nations, and representation of workers on different groups of animals is more important than representation of different nations. At the same time it is obviously undesirable that the Commission should be dominated by nationals of any one country or small group of countries. National representation should be taken into account only in this negative sense. There are wide differences in the activity of different countries both in zoology as a whole and in systematic zoology; it is therefore reasonable to expect that some countries will be more heavily represented on the Commission than others and that the proportion of such representation will change as the distribution of scientific activity changes. There is, however, no simple and objective means of measuring the relative activity in zoology of different countries, nor is such activity necessarily exactly proportional to the number of individuals qualified for membership of the Commission. The Committee therefore agreed that a formula based, for example, on number of publications over a given period would not be a safe guide for deciding whether national representation on the Commission was in balance at any particular time.

The Committee accordingly recommends adoption of the following principles:

(1) The primary criterion of membership in the Commission should not be nationality but should be competence in the field of nomenclature, or, in special cases, competence in some field of general zoology with a demonstrated working knowledge and understanding of the rules and problems of nomenclature. In particular, a retiring commissioner ought not automatically to be succeeded by one of the same nationality.

(2) Subject to (1), the citizens of a single nation or of a small group of nations should not constitute a majority of the Commission.

(3) Subject to (1), the membership of the Commission should represent a reasonable proportion of the nations contributing to the zoological literature and especially to that of systematic zoology.

(4) Subject to previous provisions a nation contributing heavily to the zoological literature, and especially to that of systematic zoology, should in general have more members of the Commission than one contributing less.

(signed) L. B. HOLTHUIS
HENNING LEMCHE
EUGENE MUNROE (*Chairman*)

Appendix 2

REPORT OF THE COMMITTEE TO CONSIDER PARATAXA

Dear Dr. China:

In response to your letter of inquiry sent to me under the date of 20 June 1963, I submit to you herewith the original and a carbon of a " Report on the Proposal of Parataxa." This is entirely agreed to by committee members, Walton, Yochelson, and Moore, and not specifically voted against by committee member Sylvester-Bradley who (on 31 October 1962) said that the draft of the report seemed to him illogical in suggesting the " dual classification in nomenclature is unnecessary because of the highly subjective nature of synonymization." He recommended that Professor F. H. T. Rhodes (Swansea) should be co-opted as a member of the committee; this was not done.

Sincerely yours,
(signed) RAYMOND C. MOORE

REPORT ON THE PROPOSAL OF PARATAXA

The concept of parataxa, a special taxonomic category restricted to fragments or life stages which in themselves are inadequate for identification of whole-animal taxa, was first proposed in Bulletin 15 of the International Commission of Zoological Nomenclature. A significant part of this volume was devoted to the opinions of various specialists on the proposal.

At the 1958 colloquium of nomenclature preceding the 15th International Zoological Congress, it was ruled by the chair that discussion of this proposal would be deferred, as discussion of the Bradley draft of the International Rules of Zoological Nomenclature must take priority. Later, it became clear that the colloquium would be hard pressed to complete the business in hand. Because the parataxa proposal had raised considerable comment, both for and against the concept, the chair appointed a committee consisting of R. C. Moore, P. Oman and J. Roger, to give a brief report on the proposal.

An informal test vote in the colloquium taken at the time this first committee was appointed was overwhelmingly opposed to the proposal. At the time of the committee report, a second vote was also opposed to parataxa but by a less wide margin. The committee report agreed that even though parataxa might not be an acceptable solution, the problem of nomenclature of fragments was a pressing one, particularly in the study of various discrete, highly incomplete skeletal remains, such as conodonts, preserved as fossils. The effort to find a satisfactory solution should be given further study.

The present committee was appointed by Professor Jean B. Baer in June 1962, to prepare a report which would serve to guide the forthcoming Nomenclature Section of the 16th International Zoological Congress in regard to the matter of parataxa.

At about the same time this committee was appointed, Volume W of *The Treatise on Invertebrate Paleontology* was released. Among other items, this volume contains a classification of conodonts and discussions by four authors on the problem of conodont nomenclature. In the opinion of a majority of the present committee Moore's statement on p. W92–W97 provides an adequate solution to the apparent problem of dual nomenclature of (1) discrete conodonts and conodont assemblages, (2) discrete cephalopod aptychi and aptychus-conch associations, (3) and similar fragmentary fossil remains. Moore pointed out that any supposed identity of discrete forms with those found associated together within an assemblage must, of necessity, be highly subjective, and in view of this great subjectivity in identification, application of Article 24(b)(i) [The Law of Priority applies when any part of an animal is named before the whole animal], is not warranted.

It is also the opinion of a majority of the committee that this logic may be applied to other groups of animals considered under the original proposal for parataxa.

Recommendation

Therefore, it is the opinion of a majority of the committee that dual classification and nomenclature applied to animals, including those represented by fragmented remains, are unnecessary. Accordingly, it is recommended that further consideration of the proposal for parataxa should be abandoned.

Respectfully submitted,
RAYMOND C. MOORE (*Chairman*)
PETER C. SYLVESTER-BRADLEY
ARTHUR C. WALTON
ELLIS L. YOCHELSON
(signed) RAYMOND C. MOORE

Appendix 3

REPORT OF COMMITTEE ON RESOLUTIONS

1 RESOLUTION

At the urgent request of the Executive Committee, extended after the close of the London meeting in 1958, Commissioner Norman Denbigh Riley C.B.E., agreed to resume the post of Honorary Secretary so suddenly and lamentably vacated because of the ill-health of Commissioner Hemming. Due to personal commitments in other affairs Commissioner Riley was most reluctant to take on this added burden of responsibility. The Commission is therefore all the more grateful that he not only did accept the position, but continued to discharge its duties wisely and with competence until, having finally seen the new edition of the Code through the Press on behalf of the Editorial Committee, he was able to arrange for the continuation of his work by an able successor.

The Commission now expresses its deep gratitude to Mr. Riley for what he has accomplished. It signifies at the same time its regret that he eventually found it necessary to relinquish the position of Honorary Secretary.

2 RESOLUTION

When on the eve of the London Congress in 1958 Mr. Francis Hemming found it necessary to intimate that on the advice of his medical attendants he would not be able either to participate in the Colloquium which had been called to settle the terms of the revised text of the International Code or to continue to act as Secretary after the close of the Congress, a situation of the greatest difficulty arose. What was required was a specialist familiar with the problems of zoological nomenclature, well known in his own speciality and personally acquainted with the leading members of the meeting shortly to take place who would be able and willing to take charge of the organisation of the work of the Colloquium and its meetings and after the close of the meeting, both to assist in editing the text approved by the Congress, while at the same time maintaining, so far as possible, the ordinary work of the secretariat of the Commission. It was therefore a matter of the greatest good fortune that it was found possible to secure the consent of the British authorities for the loan to the Commission for one year of the services of Mr. Richard V. Melville, a specialist on the staff of the Geological Survey of Great Britain. The warmest thanks are due also to Mr. Melville for consenting to accept this onerous task, virtually at the eleventh hour. No better choice could have been made: for Mr. Melville was keenly interested in zoological nomenclature and as a specialist in Jurassic invertebrates had already submitted a number of applications to the Commission and was thoroughly familiar with its work. Moreover, he had himself attended the Colloquium on nomenclature held at Copenhagen in 1953 and was thus acquainted both with the specialists who would be taking part in the London Colloquium and also with the matters which would be placed before that meeting for decision.

Mr. Melville attacked his task with great enthusiasm and vigour and achieved a notable success. After the close of the Congress Mr. Melville set himself to organise the secretariat of the Commission on a new basis, it being necessary to find accommodation of its own for its office, consequent upon Mr. Hemming's resignation of the Secretaryship. At the same time Mr. Melville was able to arrange for the resumption of the publication of new applications in the *Bulletin of Zoological Nomenclature*. Concurrently with the discharge of these exacting tasks Mr. Melville prepared a preliminary synthesis of the decisions on the Code taken by the London Congress, for the consideration of the Editorial Committee of which he acted as Secretary.

On completion of his period of secondment, Mr. Melville returned to his official British employment, being shortly afterwards appointed to the newly established Scientific Advisory Section of the British Diplomatic Service, his headquarters being in Paris.

The Commission desires to record its great appreciation of the public-spirited way in which Mr. Melville entered its service at a moment of particular difficulty and to express their gratitude for the energy and success with which he carried out the multifarious duties entrusted to him.

3 RESOLUTION

Professor J. Chester Bradley was elected a member of the Commission in March 1944, in succession to the late Dr. Witmer Stone of the Academy of Natural Sciences, of Philadelphia. The time was one of exceptional difficulty for all international bodies owing to the World War then raging, which both disrupted communications between the members and raised great obstacles in the way of publication of the work of such bodies. Immediately upon joining the Commission Professor Bradley threw himself enthusiastically into his new task. For this he was particularly well fitted by the active interest which before the war he had shewn in the promotion of stability in zoological nomenclature, having himself taken a leading part in seeking, in conjunction with other specialists, the stabilisation of some of the most important generic names in the Hymenoptera. The proposals which he then submitted were later approved by the Commission and constituted its first major step in what later was to become its settled policy for preventing the disturbance of well-known and long-established names.

After the war Professor Bradley turned to the problem of the reform of the Code, a subject which was to be the principal field of his work, first as a member, and later as President, of the Commission. In the winter of 1957/8 he participated in the preparation of the proposals to be laid before the Paris Congress in July 1948, and at that Congress took a leading part in the discussions which led to the adoption of a large number of proposals for the reform of the Code. On the Presidency of the Commission falling vacant through the death of Dr. James Lee Peters of the Museum of Comparative Zoology, Harvard, Professor Bradley was elected as his successor. In his new capacity Professor Bradley redoubled his attention to the question of the reform of the Code, submitting numerous proposals for the consideration of the Colloquium held at Copenhagen in 1953, including, in particular, detailed recommendations for the regulation of types and lectotypes. At the conclusion of the Copenhagen meeting Professor Bradley was invited, on the proposal of Secretary Francis Hemming, to undertake the task of building up an entirely new text of the Code which would take account of the decisions reached at Copenhagen as well as those taken in Paris in 1948. Professor Bradley accepted this onerous task which was to form his major preoccupation in the immediately following years. Professor Bradley's draft, which was published in 1957 (*Bull. zool. Nomencl.*, vol. 14) formed the basis of the discussions at the London Congress in July 1958, which culminated in the adoption of the revised Code published in 1961, and earned for him the passing of a vote of thanks by the London Congress by acclamation.

Professor Bradley was particularly well fitted for the duties of President of the Commission. His firm conviction of the need for international co-operation in the field of zoological nomenclature, his sound judgment, his strong sense of fairness, coupled, where necessary, with firmness, and finally his friendly disposition combined to earn for him the respect and affection of those with whom his work brought him in contact. His occupancy of the Presidency was one of exceptional importance, comparable only with that of Professor Raphael Blanchard fifty years earlier. Both men devoted their main attention to the international regulation of zoological nomenclature, Professor Blanchard being the principal author of the Code ultimately adopted in Berlin in 1901, Professor Chester Bradley playing a similar role in the preparation of the draft of the revised Code adopted by the London Congress in 1958.

Now that the time has come for Professor Bradley to lay down the Office of President, the Commission desires to place on record its high appreciation of the eminent services which he has rendered, its grateful thanks for the outstanding contribution which he has made in the field of zoological nomenclature and finally to express the warm regard and affection in which he is held by the members of the body over which he has presided with such distinction.

Resolution 4

The Commission wishes to express its deep appreciation of the services rendered by Messrs. Stoll, Dollfus, Forest, Riley, Sabrosky and Wright in preparing the final text of the Code for publication. This involved three years of hard work on this difficult project and taxonomic zoologists owe them a debt of gratitude which it is difficult to express in a few words.

Resolution 5

The Commission wishes to take this opportunity of thanking Mr. Curtis D. Sabrosky for the very valuable service he has given in attending to the many practical details involved in the preparation for this meeting of the Commission in Washington.

(signed) W. E. CHINA (*Chairman*)
A. DO AMARAL
A. H. MILLER
L. B. HOLTHUIS

Appendix 4

THE CONSTITUTION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Article 1. Status and Functions of the Commission.

Status, Duties and Powers of the Commission are derived from the International Congresses of Zoology as stated in Chapter XVII of the Code.

Article 2. Membership.

(a) Number—The Commission shall consist of 18 or more Commissioners. The number at any given time shall be determined by the International Congress, or by the Commission acting on its behalf.

(b) Qualifications. The Commissioners shall be eminent scientists, irrespective of nationality, with a distinguished record in any branch of zoology, who are known to have an interest in zoological nomenclature.

(c) Representation of Diverse Interests. As far as practicable, the composition of the Commission shall be such as to secure a balanced representation:

(i) of systematists in the principal divisions of the animal kingdom;
(ii) of zoologists from different parts of the world;
(iii) of palaeozoologists;
(iv) not only of systematic zoologists, but also of those workers in general zoology and the applied biological sciences (e.g. medicine, agriculture, etc.) who, as users of zoological names, are directly interested in the problem of nomenclature, and who have shown an understanding of the general problems underlying zoological nomenclature.

(d) Alternate Commissioners:

(i) To replace temporarily Commissioners not in attendance at any given session of the Commission, the Commission may elect alternates from among zoologists attending the Congress. Such alternates shall not serve beyond the duration of the session.

(ii) An alternate Commissioner shall possess the status of any other Commissioner, with all his rights, privileges, duties and obligations.

Article 3. Term of Service of Commissioners.

(a) Regular term. The term of that one-third of the Commission who have had the longest service since they were last elected shall terminate at the close of each Congress.

(b) Prior termination of Membership. The membership of any Commissioner shall terminate:

(i) on the date of his 75th birthday;

(ii) if he tenders his resignation in writing to the Secretary, when this resignation is accepted by the Council;

(iii) if, not being on leave of absence, he fails on five consecutive occasions to record his vote on a question put to the Commission for decision, provided that within a period of three months following such failure he has not furnished the Secretary with a written explanation which the Council finds adequate.

Article 4. Election of Commissioners.

(a) At Congresses. Vacancies occurring at any Congress shall be filled by the Congress upon nomination by the Commission. Retiring Commissioners shall be eligible for re-election. From among the nominations the Section on Nomenclature shall elect the required number of Commissioners by paper ballot, the election to be confirmed by the Plenary Session.

(b) Between Congresses. When a vacancy arises between Congresses, the fact shall be published. Such vacancies may be filled by vote of the Commission, on nominations by the Council, as specified in the By-Laws.

(c) Announcement of Results. Notice of the election of new Commissioners shall be immediately published.

Article 5. Duties of Commissioners.

(a) At Meetings. It shall be the duty of a Commissioner to attend each session of the Commission if it is possible for him to do so, and to attend each meeting during a session unless excused for compelling reasons by the presiding officer.

(b) Between Meetings. It shall be the duty of a Commissioner to vote, within the prescribed period, upon each question submitted to him for that purpose by the Secretary.

(c) Leave of Absence. A Commissioner who is temporarily unable to perform his duties should apply through the Secretary (if possible in advance) for leave of absence for a specified period.

Article 6. Officers.

The officers of the Commission shall be a President, a Vice-President, and such other officers as the Commission shall decide upon and the By-Laws permit. The duties of the officers shall be stated in the By-Laws.

Article 7. Council.

The President, the Vice-President, the past President, and sufficient elected Commissioners (ordinarily 2) to bring the total to five shall form a Council. This Council is charged to perform, on behalf of the Commission, the duties assigned to it specifically under the provisions of the preceding and following Articles and to supervise the work of the Commission between sessions, not specifically relegated to an officer or to the Secretariat nor deemed by the President of sufficient importance to require a formal vote by the Commission.

The Council may designate Commissioners to serve in a special capacity.

Article 8. Election of Officers and Councillors.

Election of Officers and Councillors shall be conducted by secret ballot as specified in the By-Laws.

Article 9. Secretariat.

The Council shall appoint a Secretary, who may be either a Commissioner serving in an honorary capacity, or, finances permitting, a salaried employee. It may also, finances permitting, employ an assistant secretary and clerical staff, whose duties shall be determined by the Secretary subject to approval by the Council.

Article 10. Committees.

(a) The Council, through the President, may appoint advisory and *ad hoc* Committees to facilitate the editorial or fact-finding tasks of the Secretariat or to assist the Commission in any other way. Zoologists who are not members of the Commission are eligible to serve on such Committees.

(b) Each *ad hoc* committee must report to the Council at the time in the terms of its appointment or when called upon by the Council to do so. *Ad hoc* committees dissolve on submitting their final report. The term of any committee expires simultaneously with the term of the President who appointed it. The incoming President may re-appoint any committee in existence at the time of his predecessor's retirement.

Article 11. Sessions.

(a) A session of the Commission shall be held in association with each International Congress of Zoology. It shall consist of such meetings as may be convenient, and may commence prior to the opening of the Congress or continue after its close. Between sessions the business of the Commission shall be transacted by post.

(b) No meeting of the Commission shall be valid unless six Commissioners (excluding alternates) are present.

Article 12. Voting.

The following procedure shall apply when the Commission votes on matters of nomenclature:

(a) In Ordinary Cases. In cases not involving the plenary powers, an affirmative decision on any proposal shall be deemed to have been taken by the

Commission when a simple majority of those voting votes in favour within the time period stipulated on the voting paper.

(b) In Cases Involving the Use of the Plenary Powers. In such cases (see Article 79 of the Code), an affirmative decision shall be deemed to have been taken only when two-thirds of the votes validly cast are in favour of the proposal, and provided that not less than six months' notice of the impending vote had been given in at least three zoological serials, including one published in Europe, and one in America.

(c) Conditional Votes. A Commissioner, who instead of casting an unconditional vote, states that he wishes to support the majority view shall be deemed to have voted in that sense.

(d) Negative Votes. A Commissioner casting a negative vote may, if he wishes, submit with his voting paper a short statement of his reasons for so doing; any such statements shall be published along with the result of the vote.

Article 13. Financial Arrangements.

The Commission when not prepared to raise or administer its own funds is empowered for such purposes to enter into a beneficent relationship with a body such as the International Trust for Zoological Nomenclature, that undertakes to act in accordance with the policy of the Commission and the Congresses. The Commission may terminate such a relationship at its discretion.

Article 14. Editorial Duties of the Commission.

The Commission shall issue, and finances permitting, may itself publish various communications, to be prepared and edited in the office of the Secretary under the guidance of the Council.

(a) It shall be the duty of the Commission to publish Declarations, Opinions and Directions, as specified in Article 78 of the Code, embodying the decisions of the Commission.

(b) Finances permitting, it shall be the duty of the Commission to publish a periodical for the purpose of keeping zoologists informed on cases pending before the Commission, for publishing the procedure of the Commission, for announcements, and for the general discussion of nomenclatural questions.

(c) Maintenance of " Official Lists " and " Indexes." The Commission shall compile and maintain the undermentioned *Lists* and *Indexes:*

(i) Official List of Family-Group Names in Zoology;
(ii) Official List of Generic Names in Zoology;
(iii) Official List of Specific Names in Zoology;
(iv) Official Index of Rejected and Invalid Family-Group Names in Zoology;
(v) Official Index of Rejected and Invalid Generic Names in Zoology;
(vi) Official Index of Rejected and Invalid Specific Names in Zoology;
(vii) Official List of Works Approved as Available for Zoological Nomenclature;
(viii) Official Index of Rejected and Invalid Works in Zoological Nomenclature.

Article 15. Emergency Powers.

If, as a result of an emergency, the Congress is prevented from holding its normal periodical meeting, the Commission, or the Council, or failing this, the President, may assume and exercise such extraordinary powers as it or he may consider necessary to secure the continued existence of the Commission, provided:

(i) that the powers assumed shall not include power to vary the Code or power by the Council or the President to render Declarations or Opinions on behalf of the Commission;

(ii) that, at the first meeting of the Congress after the end of such emergency, the Commission shall submit a report to the Congress regarding the extraordinary powers assumed during the emergency and the action taken thereunder.

Article 16. Amendments.

Changes in the Constitution can be made only by the Congresses, on recommendation by the Commission, in the same manner as amendments to the Code (see Code Art. 87).

Article 17. By-Laws.

The Commission is empowered to adopt a set of By-Laws governing those of its regulations and activities not covered by the Constitution. The Commission has authority to modify these By-Laws by a majority vote as the occasion demands. These By-Laws will deal with such matters as the duties of the officers, the methods by which nominations are to be obtained for vacancies on the Commission, the relations between the Commission and the Secretariat, with regulations concerning the processing of applications and the adoption of time schedules and priorities, and with other business matters of the Commission.

Article 18. Inauguration.

This Constitution and all subsequent amendments to it shall take effect at the close of the Congress at which it, or they, are ratified.

When this Constitution is ratified, all Commissioners who lose their membership under its terms shall not do so until successors have been elected to replace them, and it shall be their duty and not that of the replacing commissioners to vote on all questions that have already been submitted to them for mail ballot. For this purpose they shall be allowed the full period of the ballot, even though their membership has attained a prior termination.

Equally all officers shall remain in office until one month after the election of their successors and of the Council has been completed. The Secretary (Honorary Secretary) and the entire Secretariat shall continue in office until the New Council has confirmed the appointment of the Secretary or replaced him, and has confirmed the continuation of other members of the Secretariat, or arranged with their appointing body for their replacement. Equally the Executive Committee shall continue to control the routine operations of the Commission until one month after the formation of the Council has been completed.

CONCURRENCE WITH P. J. P. WHITEHEAD IN PROPOSAL TO SUPPRESS *ATHERINA JAPONICA* HOUTTUYN, 1782 AS A *NOMEN DUBIUM*. Z.N.(S.) 569

By Carl L. Hubbs (*University of California, San Diego, La Jolla*)

The subject proposal by P. J. P. Whitehead (*Bull. zool. Nomencl.*, vol. 20, pt. 4, July, 1963 : 281–284) states the case clearly and conclusively. An Opinion implementing the three stated propositions would adequately amplify Opinion 93 and would contribute to stability in the nomenclature of certain widely known fishes.

Two minor points in the proposal, though not affecting the three propositions to be voted on, are sufficiently confusing to warrant comment.

The first point is the assertion that *Anchoviella* Fowler, 1911 is a synonym of *Stolephorus* Lacépède " if restricted solely to Indo-Pacific species (as in Fowler, 1941, *Bull. U.S. nat. Mus.* No. 100 : 696)." Fowler did not so restrict *Anchoviella* in the paper cited; he included American species (listed as type species of generic synonyms) and, in Whitehead's opinion (and mine), misplaced the Indo-Pacific species in a strictly American genus; Jordan, in drafting Opinion 93, likewise confused the Indo-Pacific species that are commonly referred to *Stolephorus* with *Anchoviella*. Furthermore, such subjective generic synonymies should not be stated in a way that might be construed as a fact.

The second point involves the recommendation that a clarifying phrase (" if such be assumed ") be inserted in proposition (3), to read:

(3) place the following names on the Official List of Specific Names in Zoology, each having validity notwithstanding the apparent priority, if such be assumed, of *Atherina japonica* Houttuyn, 1782:

Both of these points emphasize the contrast between the application of the Code and the systematic judgment of each zoologist.

COMMENTS ON THE PROPOSED USE OF THE PLENARY POWERS IN CONNECTION WITH CERTAIN NAMES OF TANAGER. Z.N.(S.) 1182

(see volume 20, pages 296–302)

By Alexander Wetmore (*Smithsonian Institution, Washington, D.C., U.S.A.*)

As introduction to the brief comments that follow, may I repeat a part of what Dr. Mayr has stated in section II of his memorandum; namely, that action by Miller and Wetmore in 1926 in the use of *Thraupis* and Thraupidae was in accord with rules and procedures current at that time. These names, and usage in the others concerned in the present discussion, were accepted—again as Dr. Mayr has stated—and are found in major check-lists and other important reference works in ornithology throughout the Americas. There is thus no confusion regarding them among the considerable number of workers resident in the vast region where these interesting birds are found.

Whenever ornithologists abroad have need to consider this American family in any way the current names are readily available.

It seems unrealistic to consider change at this time to avoid " confusion " among the last mentioned group, as any such action certainly would confuse and disturb the far greater body of workers in the New World who deal with these birds. In addition there would arise difficulties in connection with the considerable volume of modern literature in which these current names appear.

Dr. Kenneth C. Parkes has discussed these matters with me, and I agree with his findings in the thoughtfully worded summary that he has submitted.

It is my opinion that adoption of any of the changes suggested would be unwise. It is my recommendation that all be denied.

By Robert W. Storer (*Museum of Zoology, University of Michigan, Ann Arbor, Michigan, U.S.A.*)

Dr. Kenneth C. Parkes has sent me a copy of his carefully documented comments on the proposed changes in the names of certain tanagers.

I am in complete agreement with Dr. Parkes in the matter of retaining the name "*Thraupis virens*" for the Bishop Tanager. In an early draft of Dr. Mayr's proposal, which he sent me for comments, there was no mention of a request to validate the name "*episcopus*". This part of the proposal (*Bull. zool. Nomencl.* **20** : 302, 1963) was sent to the Commission under my name but without my knowledge or consent. In my preliminary manuscript on the tanagers for *Peters' Check-List of Birds of the World*, which has been in the hands of the editors since before Dr. Mayr's proposal was sent to me, I used the name "*virens*" and still believe it the correct and preferable name for that species.

By Standing Committee on Ornithological Nomenclature of the International Ornithological Congress.

Chairman: Charles Vaurie

In *Bull. zool. Nomencl.*, vol. 20, pt. 4 : 296–392 are certain alternative proposals regarding the names of some genera of tanagers, the family-group name of the taxon, and a few species-group names. The question of the generic names and the family-group name are related and most important and will be discussed first.

1. The generic names *Tanagra*, *Thraupis*, *Euphonia*, and the family-group names Thraupidae and Tanagridae. There are two proposals in regard to this matter. The earlier one (Proposal A) submitted on 27 November, 1956 by three (out of the four) then members of this Committee (S.C.O.N.) was read in substance (after its submission) at the XII International Ornithological Congress held at Helsinki in 1958. It met with overwhelming opposition from virtually all the American ornithologists present (see Proc. XII Int. Ornith. Congress, 1 : 43). As the family-group involved is exclusively American and current usage for over thirty years would have been upset by Proposal A, the original advocate of that proposal, Prof. E. Mayr, joined by two members of the former S.C.O.N., Prof. E. Stresemann and Dr. A. H. Miller, as well as by Dr. R. W. Storer, have offered substitute Proposal B. This proposal, so far as it relates to preservation of the family-group name Thraupidae, and the generic name *Thraupis* Boie, 1826, maintains current universal usage for over thirty years in all the New World literature (regardless of country), as well as in recent publications of Old World authors relating specifically to the New World. In so far as the proposal would reject *Tanagra* Linnaeus, 1764, and replace it by *Euphonia* Desmarest, 1806, a reversion to older usage is involved. This appears to us justified (a) because the name *Tanagra* has been applied to two very different groups, while *Euphonia* has always been of definite application; (b) the name *Tanagra* is confusingly similar to *Tangara* Brisson currently applied to another genus of tanagers; and (c) restoration of the name *Euphonia* will be facilitated because the group has been generally known in the literature by the English name Euphonia. For these reasons the present Standing Committee on Ornithological Nomenclature[1] supports unanimously Proposal B so far as it relates to validating the family-group name Thraupidae and the generic names *Thraupis* and *Euphonia*, and to invalidating the family-group name Tanagridae and the generic names *Tanagra* Linnaeus, 1764 and *Tanagra* Linnaeus, 1766.

2. The specific names *ornata*, *episcopus* and *virens*, *olivacea* and *minuta*. Items 3 (a), (b), and (c) of Proposal B relate to certain specific names in the genera discussed above. (These proposals were not mentioned at the International Ornithological Congress nor discussed there.)

Item 3 (a), placing *ornata* Sparrman, 1789 on the Official List, is *favored*, for it presents no controversy, as that name is universally used and appears to be the oldest.

Item 3 (c) placing *episcopus* Linnaeus, 1766 on the Official List and rejecting Gyldenstolpe's 1945 action as first reviser in selecting *Loxia virens*, 1766 rather than

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[1] The zoologists who were members of the old S.C.O.N. (in contrast with their earlier Proposal A) take the same view, for two, Prof. Stresemann and Dr. Miller, are proponents of Proposal B; Dr. F. Salomonsen joins in approval of the present paper, and the deceased Dr. G. C. A. Junge in his last paper (1958) relating to these tanagers "The Avifauna of Trinidad and Tobago", used the family-group name Thraupinae and the generic name *Thraupis*.

Tanagra episcopus Linnaeus 1766 is also favored. Prior to 1945 *episcopus* was universally used. While some authors have since then adopted *virens*, by no means all have done so and action by the Commission is desirable to settle the question.

Item (3) (b) to place *olivacea* Desmarest, 1806 on the Official List and thus to reject *minuta* Cabanis, 1849 is *opposed*. This Committee favours the opposite treatment (which was also favored by the predecessor S.C.O.N.) on the ground that *minuta* Cabanis has been the universally accepted specific name since Hellmayr's Catalogue of Birds of the Americas, pt. 9 : 31 (1936), and it was the name favored long before then in the major descriptive reference works (Salvin and Godman, " Biologia Centrali-Americana ", 1883; Sclater " Catalogue of Birds in the British Museum " 1886; Ridgway, " Birds of North and Middle America ", 1902 ; Penard " Vogel Guyana ", 1910 ; Chubb, " Birds of British Guiana ", 1921). (*Euphonia olivacea* Desmarest was regarded as dubious by many authors.) Since 1936 *minuta* has been used in all ornithological works, without exception, so far as we are aware. We recognize that under the new Code of Zoological Nomenclature, *Euphonia olivacea* Desmarest cannot be regarded as validly rejected as a junior secondary homonym by Hellmayr even after transfer by him to the nominal genus *Tanagra*, since *Tanagra olivacea* Gmelin [=*Piranga olivacea* (Gmelin)] was not regarded by him as congeneric.[2] Our reason for requesting the preservation of *minuta* Cabanis and rejection of *olivacea* Desmarest is maintenance of long usage, which since 1936 has been universal (See Zimmer, 1943, Studies of Peruvian Birds, Amer. Mus. Novit. no. 1225 : 8 ; Pinto, 1944, " Catálogo das Aves do Brasil," 2 : 451; Phelps and Phelps, 1950 " Lista de las Aves de Venezuela con su Distribición," 1 (2) : 311; 1963, *ibid* second ed. : 355; De Schauensee, 1951, " The Birds of the Republic of Colombia," Caldasia, 5 (25) : 1021. Also book in page proof to appear March 1964; Eisenmann, 1955, " The Species of Middle American Birds," Linn. Soc., N.Y., 7 : 97; Haverschmidt, 1955, " List of the Birds of Surinam " : 1930).

3. The Standing Committee on Zoological Nomenclature of the International Ornithological Congress recommends as follows:

A. Approval of Items (1) (a), (2) (a) and (b), (3) (a) and (c), (4), (5) (a) and (b) and (6) of Proposal B.

B. Rejection of Item (3) (b) of Proposal B.

C. Use of its plenary powers by the International Commission on Zoological Nomenclature in regard to the matters involved in Item (3) (b):

(a) to place the specific name *minuta* Cabanis, 1849 as published in the binomen *Euphona minuta* (in Schomburgk " 1848 " Reisen Brit. Guiana, 3 : 671) on the Official List of Specific Names in Zoology; and

(b) to place *olivacea* Desmarest, 1806, as published in the binomen *Euphonia olivacea* [=*Euphonia minuta* (Cabanis)] on the Official Index of Rejected Names in Zoology.

J. P. Dorst, Muséum d'Histoire Naturelle, Paris, France.
E. Eisenmann, American Museum of Natural History, New York, U.S.A.
F. Salomonsen, Zoologisk Museum, Copenhagen, Denmark.
K. H. Voous, Zoölogisch Museum, Amsterdam, Netherlands.
C. Vaurie, American Museum of Natural History, New York, U.S.A. *Chairman.*

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[2] The footnote at p. 302 of *Bull. zool. Nomencl.*, vol. 20, p. 4 is not factually correct. Hellmayr (Catalogue of Birds of the Americas, Pt. 9: 31, 1936) did reject *Euphonia olivacea* as a junior secondary homonym, under a view of homonymy shared by many zoologists. *Euphonia minuta* Cabanis 1849 far from being a "little known name" is by far the best known specific name (see citations in Hellmayr, *op. cit.* and above).

COMMENT ON THE PROPOSED SUPPRESSION OF THE NAME *PLEURONECTES GROHMANNI* BONAPARTE, 1837 (PISCES PLEURONECTIFORMES). Z.N.(S.) 1579

(see volume 20, page 372)

By Enrico Tortonese (*Museum of Natural History, Genoa, Italy*)

A common Mediterranean species of the genus *Arnoglossus* (Pleuronectiformes, Bothidae) has been known for a long time as *A. grohmanni* (*Pleuronectes grohmanni* Bonaparte, 1837). Kyle (1913) recognized that a different species was also included under that name and described it as *A. thori*. As was well explained also by Padoa (*Fauna Fl. Golfo di Napoli, Mon.* **38**, 1956 : 783), the true *A. grohmanni* has fewer rays in its fins (less than 80 dorsal, less than 60 anal) and, according to the original description, the second dorsal ray is elongated and thickened; the figure published by Bonaparte shows also the first ray somewhat thickened.

Both Padoa and Torchio 1961 (*Natura* **52** : 123) did not observe the latter feature, that is the enlargement of fin rays, in their specimens and pointed out the close similarity between *A. grohmanni* and *A. kessleri* Schmidt (1915) from the Black sea. In Torchio's opinion, these names have been given to the same species, which is to be named *kessleri* because *A. grohmanni* was not properly described and therefore is not recognizable. According to Torchio, the International Commission is required to use its plenary powers in order to suppress Bonaparte's name (*grohmanni*). I cannot support this proposal and here is explained why.

Bonaparte described *P. grohmanni* after a specimen from Sicily. The number of fin rays—a character of basic importance—is correctly quoted. A greater development of the second dorsal ray—not found by later students—may be interpreted just as an individual variation. Hypertrophic rays (one or more) occur rather frequently in the genus *Arnoglossus*; in some species they are always present, in others (e.g. *A. laterna*) appear only occasionally, as several authors have noticed. Therefore the hypertrophy of some dorsal rays is a character of secondary importance and we must be careful in using it for defining species.

If we admit that *grohmanni* and *kessleri* are identical (and this seems to be really the case), the species must bear the former, older name. This fish does not normally have an hypertrophic dorsal ray and its existence in Bonaparte's specimen was just an individual abnormality.

In my opinion it is not necessary to ask for the plenary powers of the Commission. The name *grohmanni*, in the usual combination *Arnoglossus grohmanni*, is well known to the Mediterranean ichthyologists and deserves to be preserved. There are no difficulties in this; it can still be used because Kyle clearly restricted it to the species with a lower number of fin rays. As the identity of this species and *A. kessleri*, described much later, seems to have been proved, *kessleri* would be—in any case—a name deserving suppression. The only point which must be mentioned here is the following: in *A. grohmanni* an hypertrophied second dorsal ray is usually absent, but may sometimes occur as, for instance, in the specimen described by Bonaparte.

COMMENTS ON *THAMNOPHIS SIRTALIS*. Z.N.(S.) 1600

(see volume 20, pages 397–400)

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana*)

The history of the nomenclature of the Common Garter Snake and Common Ribbon Snake of eastern North America is a tragedy of errors. It is ironic that the carefully designed attempt by Schmidt and Conant forever to lay to the rest the specter of further nomenclatural upheaval for these two species has itself fallen prey to the insidious propensity of man to err. Even more doleful regrets may be expressed that the supposedly final and virtually inviolate official declarations of the International Commission on Zoological Nomenclature relative to these names, or to any names, should prove to be so easily vulnerable to considerations for still further revision.

The situation has indeed arisen where a cessation of the parade of changes, especially at the point of the proposed reversal of previous considered action by the ICZN, might well be regarded as now of greater importance than simple stability of nomenclature. In fact, the names *haven't* been especially stable in the past 20 years. Furthermore, who can be certain that, some years hence, someone will not find that restriction of the type-locality to some other spot, as for example Charleston, South Carolina, has not resulted in limitation of the nominate race to a relatively insignificant subspecies instead of the most widely distributed one? Then the whole matter might again be raised for change if a precedent is now set for it.

The analysis furnished by Cook is certainly correct, and important to have on the record. In my opinion, however, it would be best to forego the factually reasonable correction he suggests, in the interest of preservation of the authority of ICZN decisions at all costs short of excessive disturbance to nomenclature. In the present case the nomenclatural disturbance would not be excessive—although of course there would be a minor disturbance—if the rulings of Opinion 385 were allowed to stand unchanged. The name *sirtalis* remains with the same *species* in both alternatives, which differ primarily in identity of the nominate subspecies. It is unfortunate, to be sure, that the nominate race of the allocation decreed by Opinion 385 is of such restricted range. Nevertheless, acceptance of that restricted range, even with rejection of the name *pallidula* previously applied to the actual nominate race and usage of *ordinatus* for the subspecies formerly regarded (incorrectly, as presently understood) as nominate, would be preferable to a change in the decisions of Opinion 385. Although the species is common and its literature is broad in scope, non-taxonomists will be little affected in the future, and little if any confusion in interpretation of published literature will result, if the allocation required by Opinion 385 is upheld, because the identity of the *species* is not involved. Distinction at the subspecific level is for the most part not critical, except in taxonomic work. Taxonomists are the best equipped of all zoologists to handle changes in subspecific names, and no really serious confusion of intent is likely to result if the alterations in nomenclature required by Cook's discoveries are put into effect, following the dictates of Opinion 385.

Accordingly, in the interest of integrity of considered ICZN decisions, and in view of the relative unimportance of avoiding the changes required in current nomenclature by strict application of Opinion 385, I urge that the ICZN affirm the validity of Opinion 385, rejecting the proposal for revision thereof.

By Ernst Mayr (*Museum of Comparative Zoology, Harvard College, Cambridge, Mass., U.S.A.*)

The application is essentially correct in stating that the neotype designation was faulty because it assumed that the type locality should be in Quebec. The snake generally known as *T. sirtalis sirtalis* quite likely does not occur that far north-east and the neotype designation, instead of stabilizing a situation, has only confused it.

Nevertheless, it might be that it is premature to undertake any action on behalf of the Commission because the geographic variation of the garter snakes in north-eastern North America is incompletely studied. Allen (1899) is his description of *pallidula* clearly restricts the name *sirtalis* to the geographic race with well defined stripes (even though he did so under the erroneous assumption that the Linnaean species *sirtalis* referred to the garter snake rather than as it actually does to the ribbon snake). Bleakney's implied shift of the type locality to Novia Scotia is not legitimate. His whole concept of *pallidula* is based on Canadian specimens, which may or may not be the same as typical *pallidula*. I wonder whether the Commission should take action until the taxonomy of this species is better known.

COMMENTS ON THE PROPOSED VALIDATION OF *PSYLLA* GEOFFROY, 1762 (INSECTA, HEMIPTERA). Z.N.(S.) 1515

(see volume 20, pages 139–144)

By R. E. Balch, G. R. Underwood and I. W. Varty (*Canada Department of Forestry*)

With reference to your case No. Z.N.(S.) 1515, we wish to support the application of Dr. V. F. Eastop for the validation of *Psylla* Geoffroy 1762, and suppression of *Chermes* Linnaeus 1758 (Insecta, Hemiptera). The historical aspects of the case have been well documented by Eastop (*Bull. zool. Nomencl.* 20 (2) : 139–144, 1963), but more emphasis could be placed on the impact of recent usage of the genera *Psylla* and *Adelges*. Most modern authors have already discarded *Chermes*, and have thus already anticipated Eastop's proposal. The official suppression of *Chermes* would eliminate the dilemma of present and future writers uncertain of the taxonomic history.

Our interest in this case lies in the official establishment of the genus *Adelges* and its group-name derivatives; each of us has published on one or more of the species, and is well aware of the confusion resulting from the occasional use of *Chermes* by other authors. We append a list of North American authors since 1950 who have opted for *Adelges* or for *Chermes*; the balance is heavily in favour of the former.

Adelges has been used consistently in the North American literature until recently. During the past few years *Chermes* has appeared in some of the papers published in economic literature of the United States. This has been on the advice of Dr. Louise Russell. Although Dr. Russell is the taxonomist responsible for identification of the Aphidoidea at the U.S. National Museum and is a recognized authority on some families, she has not published on the Adelgidae and we are not satisfied that her reasons are based on intimate knowledge of this group.

Authors using **Chermes** *in North America*

Amman, G. D. *J. Econ. Ent.* **55** : 96–98 (1962)
Butcher, J. W., and D. L. Haynes. *J. Econ. Ent.* **53** : 979–982 (1960)
Dowden, P. B., and D. Crosby. *Proc. 10th International Congress of Entomology* **4** : 823–825. 1956. (1958)
Johnson, N. E., and K. H. Wright. *U.S. Dept. Agric., Pacific N.W. Forest and Range Expt. Sta.* Research Paper No. 18 (1957)

Authors using **Adelges** *in North America*

Balch, R. E. *Canad. Dept. Agr. Publ.* **867** : 76 pp. (1952)
Balch, R. E., R. C. Clark, and N. R. Brown. *Proc. 10th Intern. Cong. Entomol.* **4** : 807–817. 1956. (1958)
Balch, R. E., and G. R. Underwood. *Canad. Ent.* **82** : 117–123 (1950)
Brown, N. R., and R. C. Clark. *Canad. Ent.* **88** : 272–279, 678–683 (1956)
—— *Canad. Ent.* **89** : 533–546 (1957)
—— *Canad. Ent.* **91** : 596–599 (1959)
—— *Canad. Ent.* **92** : 801–811 (1960)
Clark, R. C., and N. R. Brown. *Canad. Ent.* **89** : 404–409 (1957)
—— *Canad. Ent.* **90** : 657–672 (1958)
—— *Canad. Ent.* **92** : 237–240 (1959)
—— *Canad. Ent.* **93** : 1162–1168 (1961)
—— *Canad. Ent.* **94** : 1172–1175 (1962)
Cuming, M. E. P. *Canad. Ent.* **91** : 601–617 (1959)
—— *Canad. Ent.* **94** : 395–408, 1190–1195 (1962)
Doane, C. C. *Canad. Ent.* **93** : 533–560 (1960)
Smith, B. C. *Proc. 10th Intern. Cong. Entomol.* **4** : 819–825. 1956 (1958)
—— *Canad. Ent.* **90** : 193–201 (1958)
Smith, B. C., and H. C. Coppel. *Canad. Ent.* **89** : 410–420 (1957)
Underwood, G. R. *Canad. Ent.* **87** : 201–209 (1955)
—— *Canad. Ent.* **95** : 720–724 (1963)

By D. Fr. Schremmer (*Zoological Institute, University of Vienna, Austria*)

I should very much like to support Dr. V. F. Eastop's proposal. By this action the nomenclature of the Psylloidea : Psyllidae as well as of the Aphidoidea : Adelgidae will be stabilized. The abandonment of *Adelges* and Adelgidae at this time would cause the greatest confusion. It should be noted that many species of this group are known as dangerous pest insects in forestry as well as in agriculture and therefore the names are widely used in applied entomology. The name Adelgidae has been commonly adopted by most specialists—e.g. the last time was by A. W. Steffan in *Zoologica* **109** : 1–113 (1961)—and in many scientific works.

I therefore recommend that the Commission approve the proposal of Dr. V. F. Eastop. This action would preserve two family names and two generic names, which are in common use now.

By W. Wurmbach (*Zoologisches Institut der Universitat Bonn, Germany*)

Being the author of a textbook I have had to suffer much by alteration of well-known names and have experienced how much manpower is spent in this way. It is therefore intelligible that I try to avoid any change of name which may be avoided.

I completely agree with Dr. Aug. Wilh. Steffan, Canada Department of Agriculture, in his comment concerning the preservation of the now commonly used names *Adelges* and ADELGIDAE.

The designation CHERMIDAE would be new and incorrect. The designation of the family would have to be CHERMITIDAE, following the laws of language. But as the excavation of the name *Chermes* would cause only confusion, I ask for the setting of the name *Adelges* on the list of conserved names.

By G. Lampel (*Institute of Zoology and Comparative Anatomy, Fribourg, Switzerland*)

Avec mon commentaire j'aimerais bien appuyer la proposition du Dr. Eastop au sujet de la suppression des noms *Chermes* L., CHERMIDAE ou CHERMESIDAE.

De toute facon—comme specialiste pour les PEMPHIGIDAE—je refuse l'emploi du nom *Chermes* pour *Prociphilus* Koch et le nom CHERMIDAE pour les PEMPHIGIDAE (Pass.) CB., car je crois comme Dr. Eastop, que Linnaeus n'a jamais vu des exemplaires du *Prociphilus tessellatus* (Fitch) de l'Amerique du Nord.

En outre je suis d'avis que le mieux serait de supprimer les noms *Chermes* et CHERMIDAE totalement. Quant à l'usage du nom CHERMIDAE pour une famille des Aphidina ovipara il faut dire, que dans la litterature actuelle personne ne l'emploie plus, mais presque toujours celui de ADELGIDAE (Herrich-Schaeffer dans Koch 1857) Annand 1928.

Je propose cette suppression du nom CHERMIDAE aussi dans l'emploi d'après Mr. Archibald[1] (1955–56) qui le met comme synonyme de PHYLLOXERIDAE (PHYLLOXERIDAE Archibald = le total des Aphidina ovipara). Je propose de limiter le nom PHYLLOXERIDAE aux pucerons ovipares des arbres à feuilles caduques et d'employer le nom ADELGIDAE pour les Aphidina ovipara des conifères; ces deux formations je les considère comme familles de la " Gruppe Aphidina (Pass.) Horv." (voir Börner, 1952[2]) et ADELGINAE comme sous-famille de la famille ADELGIDAE et non comme le total des Aphidina ovipara des conifères.

Le nom CHERMESIDAE, comme l'emploient Börner & Schilder (1932)[3] ou Pesson (1951)[4] on doit regarder comme faut pour des raisons grammaticales.

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[1] Archibald, K. D.: Forest Aphidae (!) of Nova Scotia. *Proc. Nova Scotian Inst. Sci.* 24 (2), 1–254 (1955–56)

[2] Börner, C.: Europae Centralis Aphides. *Mitt. Thuring. Bot. Ges.* Beiheft 3, 1–488 (1952)

[3] Börner, C., und Schilder, F. A.: Aphidoidea, Blättlause in: Sorauer's *Handbuch der Pflanzenkrankheiten* 5, Tl. 2, 4. Aufl., 551–715. Berlin, Parey 1932

[4] Pesson, P.: Ordre des Homoptères dans Grassé, P.-P.: *Traité de Zoologie* 10 (2), 1390–1656. Paris, Masson & Cie. 1951

COMMENT ON THE PROPOSED DESIGNATION OF A TYPE-SPECIES FOR *DACTYLOPUSIA* NORMAN, 1903. Z.N.(S.) 1517

(see volume 20, pages 145–147)

By Per Brinck (*Zoological Institute, University, Lund, Sweden*)

1. The name *Dactylopodia* Lang (1944) obviously was substituted for *Dactylopusia* Norman (1903), because of the wrong formation of *Dactylopusia* (cf. Code, Appendix D).

2. It is evident that *Cyclops stroemii*, as demonstrated by Lang (1948 : 1363), is a species of family Laophantidae, so Norman (1903 : 368) when designating *Dactylopus stroemii* s. Claus as the type-species of *Dactylopusia* (family Thalestridae) based this designation on a mis-identified species. Claus's *D. stroemii* consists of two species of different genera, belonging to family Diosaccidae.

3. Lang (1944 : 13) on finding that Norman's designation of *C. stroemii* as the type of *Dactylopusia* would cause much confusion, chose *Dactylopus thisboides* Claus, a non-comitted name of a widespread and common species, as the type-species of *Dactylopodia* (= *Dactylopus*).

4. Vervoort in his application proposes to change Lang's designation of *D. thisboides* as the type-species and to substitute it by *D. vulgaris* Sars, basing his proposal on Sars' interpretation of Baird's *Cyclops stroemii*. Sars' identification of *Cyclops stroemii* with *D. vulgaris* is wrong, however, according to Dr. Lang.

5. Since the Monograph by Lang there have been no nomenclatorial difficulties nor any confusion, the opinion in the Monograph being generally accepted.

6. Therefore, there seems to be no reason to change the well-founded proposal in Lang's *Monographie der Harpacticiden*, a widely used monograph which will for a long time be the standard work on the group in question.

COMMENTS ON THE PROPOSED VALIDATION OF *BORIOMYIA* BANKS, 1905. Z.N.(S.) 1531

(see volume 20, pages 305–306, volume 21, page 91)

By Ellis G. MacLeod (*Harvard University, Cambridge, Mass., U.S.A.*)

This contemplated action raises two critical points of general importance which I should like to direct your attention to:

(1) In his paragraph 6, Mr. Kimmins has argued ' Dr. B. Tjeder, in particular, has adhered to the use of the name *Boriomyia* Banks (*sensu* 1905) and he has recently pointed out (1961, *S. Afr. Anim. Life* **8** : 366) that if a new name be needed for *Boriomyia* Banks, 1905, the generic name *Wesmaelius* Krüger, 1922, as a subjective synonym of *Boriomyia* Banks, 1905, should replace *Kimminsia* Killington, 1937.' Mr. Tjeder's statement (*op. cit.*) on this point reads as follows: ' Unfortunately Dr. Killington did not know that the name *Wesmaelius* Krüger (1922) is available if *Boriomyia* Banks (1905) cannot be used, but introduced a new name *Kimminsia*.'

Both of these statements leave the distinct impression that Dr. Killington erred in 1937 by proposing *Kimminsia* to replace Banks' invalid name of 1905 rather than utilizing Krüger's generic name *Wesmaelius* for the taxon. It should be pointed out, however, that Killington did not adopt Krüger's name for the reason that he did not consider the type species of *Wesmaelius* Krüger (*Hemerobius concinnus* Stephens, 1836, by original designation) to be congeneric with the species which had been known by the invalid name of *Boriomyia* Banks, 1905 and, accordingly, provided a valid name for the taxon.

While there are undoubtedly Neuropterists who will agree with the subjective synonymy of *Wesmaelius* Krüger and *Kimminsia* Killington, there are others who certainly do not, this divergence of views stemming, of course, from the fact that this involves a question of zoological interpretation and not of nomenclatorial debate. The possible disappearance of *Kimminsia* Killington as a junior subjective synonym of *Wesmaelius* Krüger is, in my view, simply not germane to the nomenclatorial question of how best to achieve stability and universality. The Rules are certainly not to be set aside whenever a name is menaced by subjective synonymy with an older name.

(2) It is Mr. Kimmin's contention in paragraphs 6 and 7 of his application that the ends of stability and universality would be best served by a validation of the name *Boriomyia* Banks, 1905 (thus eliminating *Kimminsia* Killington as a junior subjective synonym) because of the frequent use of *Boriomyia* Banks, 1905 to cover the species of *Kimminsia* in the years since 1937, principally by Mr. Tjeder. I believe that this point is also in need of clarification.

Mr. Tjeder has, indeed, published numerous taxonomic studies on these insects in which he has used *Boriomyia* Banks (*sensu* 1905). His original reasons for this action (1941, *Ent. Tid.* **62** : 27–28) involved the mistaken notion that there were insufficient differences between *Kimminsia* Killington and *Boriomyia* Banks, 1904 (*nec* 1905) and on this basis his action, while not correct, is, nevertheless, justifiable. Later, however, after I had given him specimens of the type species of *Boriomyia* Banks, 1904 for study, while he readily admitted the generic distinctness of these two groups, he still (1961, *op cit.*) refused to adopt the name *Kimminsia* Killington, stating that he preferred to utilize Banks' invalid name of 1905 because this was the usage which Banks had intended.

While the number and quality of Mr. Tjeder's papers devoted to these insects which have appeared since 1937 is indeed impressive, Mr. Kimmins does not make it clear that these are not the only publications which have dealt with these insects since the appearance of Killington's name in 1937. In a total of at least fifteen papers published by ten different Neuropterists during this period the name *Kimminsia* Killington has been utilized in preference to *Boriomyia* Banks, 1905. These works have included revisions of the Hemerobiidae of North America (Carpenter. 1940. *Proc. Amer. Acad. Arts Sci.* **74** (7) : 193–280) and of Madagascar (Fraser. 1951. *Nat. Malgache* **3** (1) : 15–31), the Neuroptera fasicle for Bronns' *Klassen und Ordnungen des Tierreichs* (Freidrich, 1953) and a generic synopsis of the Hemerobiidae of the world (Nakahara. 1960. *Mushi* **34** (1) : 1–67). Although several papers by other authors have appeared which have followed Mr. Tjeder's nomenclatorial treatment of these names, *Boriomyia* Banks, 1905 has, nevertheless, been used by fewer authors and in fewer total publications than has *Kimminsia* Killington.

Under these circumstances I fail to see how a validation of *Boriomyia* Banks, 1905 can contribute anything toward stability or universality since it would replace a name, which, in addition to having been valid, has also been the more frequently used. More importantly, it would, in effect, penalize those authors who have followed the Rules and would seem to argue for the principle that the continued usage of an invalid name in itself constitutes grounds for the eventual acceptance of the name.

For these reasons I feel that Mr. Kimmins' proposal should not be adopted.

By D. E. Kimmins (*British Museum* (*Natural History*), *London*)

My object in submitting this application was primarily to get a ruling from the International Commission one way or the other, though naturally I would prefer a decision in favour of *Boriomyia* Banks, 1905.

I do not dispute the objections put forward in these two letters [by Carpenter and MacLeod] (there would have been no reason for submitting my case if there were not points on both sides). I merely wished to do justice to Banks, who has been rather badly treated by the strict application of the Rules.

By W. Eglin (*Basel, Switzerland*)

Ich unterstütze voll und ganz den Antrag meines Britischen Kollegen, da ich selber—wie auch mein leider verstorbener Lehrer—Herr. Prof. Dr. Ed. Handschin—den Gattungsbegriff *Boriomyia* Banks immer als den im Jahre 1905 gegebenen akzeptiert und respektiert habe, da Banks selber es war, der sich so korrigiert hat.

Die Anerkennung der Diagnose und des Genotypus von 1905 bringt endlich Klarheit in diese Gruppe der Hemerobiiden. Denn kaum hatte Killington in seinen British Neuroptera diesen Namen *Boriomyia* verworfen und durch die beiden Namen

Kimminsia & *Wesmaelius* ersetzt, da war schon die Verwirrung da, indem es sich zeigte, dass *Boriomyia enontekiensis = motoni* M.L. (Kimmins 1963 u.a.) in der Genitalstruktur eine Zwischenstellung zwischen *Kimminsia* & *Wesmaelius* (nach Killington's Diagnose) einnehmen müsste. Auch die Zahl der Radialsektoren rechtfertigt die Aufspaltung der europ. Boriomyien nicht, weshalb die meisten europ. Neuropterologen wieder zum Ueberbegriff, zum alten Gattungsbegriff *Boriomyia* Banks 1905 (vgl. auch Tjeder 1961, *South Afr. Animal Life*, vol. 8) zurückgekehrt sind.

Ich bitte Sie im Interesse der Klarstellung und Fixierung, den Antrag Kimmins positiv zu bewerten und ihm Rechtskraft zu verleihen. Die Verwendung von *Kimminsia* & *Wesmaelius* als Gattungs—namen wurden Konfusion—Verwechslung mit den durch Killington gebrauchten Begriffen—hervorrufen, was vermieden werden sollte.

Ich ersuche also, in Unterstützung des Antrags Kimmins, die Int. Nomenklatur-Kommission:

(1) den Genusbegriff *Boriomyia* Banks 1904 abzuschaffen (eliminieren)

(2) den Gattungbegriff *Boriomyia* im Sinne Banks 1905 allein zu akzeptieren und zu fixieren (mit Genotypus *Hemerobius disjunctus* Banks).

OPINION 704

CERATOSTOMA HERRMANNSEN, 1846 (GASTROPODA): ADDED TO THE OFFICIAL LIST OF GENERIC NAMES

RULING.—(1) The generic name *Ceratostoma* Herrmannsen, 1846 (gender : neuter), type-species, by monotypy, through *Cerostoma* Conrad, 1837, *Cerostoma nuttalli* Conrad, 1837, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1592.

(2) The specific name *nuttalli* Conrad, 1837, as published in the binomen *Cerostoma nuttalli* (type-species of *Ceratostoma* Herrmannsen, 1846) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 1978.

(3) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Purpura* Martyn, 1784 (a name published in a work rejected for nomenclatorial purposes) (Name No. 1697);

(b) *Cerostoma* Conrad, 1837 (a junior homonym of *Cerostoma* Latreille, [1802–1803]) (Name No. 1698);

(c) *Cerastoma* Troschel, 1838 (an incorrect spelling for *Cerostoma* Conrad, 1837) (Name No. 1699).

HISTORY OF THE CASE (Z.N.(S.) 1088)

The present case was submitted to the office of the Commission in September 1956 by Mr. Clarence A. Hall, Jr. Mr. Hall's application was sent to the printer on 17 January 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 336. The application was supported by Dr. Myra Keen.

DECISION OF THE COMMISSION

On 3 October 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62) 35 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 336. At the close of the prescribed voting period on 3 January 1963 the state of the voting was as follows:

Affirmative votes—nineteen (19), received in the following order: Lemche, Holthuis, Stoll, Mayr, Hering, China, Borchsenius, Munroe, Bonnet, Obruchev, Uchida, Riley, Binder, Alvarado, Vokes, Jaczewski, do Amaral, Evans, Mertens.

Negative votes—three (3): Key, Bradley, Kühnelt.

On Leave of Absence—one (1): Prantl.

Voting Papers not returned—three (3): Hemming, Poll, Tortonese.

Commissioners Boschma and Miller returned late affirmative votes.

A comment on the case by Commissioner J. Chester Bradley and Katherine V. W. Palmer was published in *Bull. zool. Nomencl.* **20** : 251–253. As this comment was largely concerned with the name *Purpura* it was decided to deal with it in conjunction with another application concerning that name, registered under Z.N.(S.) 1621.

Dr. Key submitted that he returned a negative vote because the applicant did not state that *Ceratostoma* was the oldest available name for the genus concerned. The Secretary has, however, been assured on this point.

Original References

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:
Cerastoma Troschel, 1838, *Arch. Naturgesch.* **1838** (2): 281
Ceratostoma Herrmannsen, 1846, *Indicis Gen. Malacoz. Primordia* **1** : 206
Cerostoma Conrad, 1837, *J. Acad. nat. Sci. Philad.* **7** : 263
nuttalli, Cerostoma Conrad, 1837, *J. Acad. nat. Sci. Philad.* **7** : 263
Purpura Martyn, 1784, *Universal Conchologist* **2** : fig. 56

CERTIFICATE

I certify that the votes cast on Voting Paper (62)35 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 704.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
22 *January* 1964

OPINION 705

BLISSUS BURMEISTER, 1835 (INSECTA, HEMIPTERA): ADDED TO THE OFFICIAL LIST OF GENERIC NAMES

RULING.—(1) The application for the use of the plenary powers to designate a type-species for *Blissus* Burmeister, 1835, is hereby rejected.

(2) The generic name *Blissus* Burmeister, 1835 (gender : masculine), type-species, by monotypy, *Blissus hirtulus* Burmeister, 1835, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1593.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *hirtulus* Burmeister, 1835, as published in the binomen *Blissus hirtulus* (type-species of *Blissus* Burmeister, 1835) (Name No. 1979);

(b) *leucopterus* Say, 1832, as published in the binomen *Lygaeus leucopterus* (Name No. 1980).

(4) The family-group name BLISSINAE (correction of BLISSIDA) Stål, 1862 (type-genus *Blissus* Burmeister, 1835) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 366.

(5) The family-group name BLISSIDA Stål, 1862 (type-genus *Blissus* Burmeister, 1835) (an incorrect original spelling for BLISSINAE) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Number 402.

HISTORY OF THE CASE (Z.N.(S.) 1471)

The present case was submitted by Dr. James A. Slater and Dr. W. E. China in February 1961. The application was sent to the printer on 6 April 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 346–348. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. An objection by Dr. E. Wagner was published in *Bull. zool. Nomencl.* **19** : 172.

DECISION OF THE COMMISSION

On 3 October 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)39 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 347–348. At the close of the prescribed voting period on 3 January 1963 the state of the voting was as follows:

Affirmative votes—thirteen (13), received in the following order: China, Stoll, Mayr, Hering, Borchsenius, Bonnet, Riley, Munroe, Jaczewski, Vokes, do Amaral, Evans, Kühnelt.

Negative votes—ten (10): Lemche, Holthuis, Obruchev, Uchida, Binder, Alvarado, Brinck, Key, Bradley, Mertens.

On Leave of Absence—one (1): Prantl.

Voting Papers not returned—three (3): Hemming, Poll, Tortonese.

Commissioner Boschma returned a late affirmative vote and Commissioner Miller a late negative vote.

On 18 January 1963 the members of the Commission were again invited to vote, on Voting Paper (63)1, either for or against the proposals relating to *Blissus* Burmeister. Attached to this Voting Paper was an explanatory note which, having given the results of voting on Voting Paper (62)39 (see above), continued as follows:

" The proposal involving the use of the plenary powers, therefore, whilst having gained a majority vote has not obtained the two-thirds majority necessary for a plenary powers decision of the Commission. In accordance with the Commission's By-Laws, the vote taken on V.P. (62)39 is therefore treated as a preliminary vote only and the proposals are now resubmitted on V.P. (63)1 for a final decision. If less than two out of every three Commissioners voting on V.P. (63)1 votes for the use of the plenary powers then the Code will be strictly applied and *Blissus* will be placed on the Official List of Generic Names with its correct type-species, *Blissus hirtulus*.

" The following comments were made by Commissioners in returning V.P. (62)39:

L. B. Holthuis (10.x.62): I believe that the Commission should interfere with name changes due to changes in taxonomic views, only in extreme cases. The fact that there are hardly any comments by specialists on this case, and the only comment is negative, indicates in my opinion that this is not such an extreme case.

D. V. Obruchev (26.x.62): I am much astonished at this proposal. If the American entomologists have erroneously referred some Nearctic bugs to a Palaearctic genus, they must select for them a new generic name. It is a very dangerous precedent. Now everybody can claim that his wrong conception of a genus be sanctioned by the Commission.

T. Jaczewski (12.xi.62): The stabilization of the name *Blissus leucopterus* (Say), used generally in economic entomology for about 90 years, is in my opinion of greater importance than the more formal objections raised by Dr. E. Wagner.

R. Alvarado (13.xi.62): If a " change of name " (*Bull.* **18** : 347) is inevitable, I think that the objection of Dr. Wagner should be carefully considered to avoid instability.

P. Brinck (14.xi.62): It seems evident that the proposal means transference of the name *Blissus* to a group of species not included in Burmeister's description, that it means a change of genus type and that it involves confusion as regard a series of palaearctic (and possibly Ethiopian and oriental) species. By putting *leucopterus* in a new genus (e.g. *Neoblissus*) this could be avoided and I doubt if it would cause any serious trouble.

K. H. L. Key (16.xi.62): I think the Commission should be cautious about intervening in situations such as this, where name-changing results from taxonomic rather than purely nomenclatural causes. I am also much influenced by Wagner's objections (1) that Burmeister's description of *Blissus* could not apply to *leucopterus* Say, and (2) that the impact of a change in generic name could be greatly diminished if the new name were constituted as a modification of the name *Blissus* (e.g. *Parablissus*).

J. C. Bradley (22.xi.62): I think Dr. Wagner is correct. If *Blissulus* were used for a new genus containing *leucopterus* the impact upon economic literature would not be too severe.

R. Mertens (1.i.63): I refer to the statement by E. Wagner, and I am of the same opinion. I strictly vote against the proposal."

At the close of the prescribed voting period for Voting Paper (63)1, 18 April 1963, the state of the voting was as follows:

Affirmative votes—ten (10): China, Hering, Bonnet, Jaczewski, Mayr, Uchida, Stoll, Hemming, Kühnelt, Evans.

Negative votes—fourteen (14): Holthuis, Vokes, Obruchev, Key, Riley, Lemche, Alvarado, Bradley, do Amaral, Binder, Brinck, Boschma, Tortonese, Mertens.

On Leave of Absence—two (2): Poll, Prantl.

Commissioners Munroe and Borchsenius returned late affirmative votes and Commissioner Miller a late negative vote. The following comments were made by Commissioners in returning their votes:

Dr. W. E. China (21.i.36): Commissioners have not understood the importance of the name *Blissus* in N. American economic literature. The palaearctic *Blissus*, type *hirtulus*, is a relatively rare genus with no economic literature whatever.

Dr. T. Jaczewski (31.i.63): I see no good reason to change my opinion expressed in my letter of Nov. 12, 1962. Stability of nomenclature is of importance in the first place to non-taxonomists, in this case to economic entomologists. The plenary powers should be used just to preserve such long-accepted names as *Blissus leucopterus* (Say). *Blissus hirtulus* Burmeister is a species rarely met with in hemipterological literature, even in taxonomic work.

Ernst Mayr (25.ii.63): There are numerous precedents where the Commission has set aside original type designations for the sake of stability. There seems no particular merit to preserve the name *Blissus* for a rather obscure group of African lygaeids.

Professor J. Chester Bradley (4.iii.63): I wish to support and emphasize the remarks of Commissioner Key.

Dr. E. G. Munroe (19.iv.63): Although I agree in principle with many of the objections raised, I consider the name *Blissus leucopterus* to be so exceptionally familiar in the economic literature as to deserve special treatment. I therefore vote for the proposal.

ORIGINAL REFERENCES

The following are the original references for the names placed on the Official Lists and Index by the Ruling given in the present Opinion:

BLISSIDA Stål, 1862, an incorrect original spelling for BLISSINAE q.v.
BLISSINAE Stål, 1862 *Öfvers K. svensk. Vetensk.-Akad. Forhandl.* **1862** : 210, 212
Blissus Burmeister, 1835, *Handb. Ent.* **2** : 290
hirtulus, *Blissus*, Burmeister, 1835, *Handb. Ent.* **2** : 290
leucopterus, *Lygaeus*, Say, 1832, *N. Sp. Het. Hemipt. N. Amer.* : 14

CERTIFICATE

I certify that the votes cast on Voting Papers (62)39 and (63)1 were cast as set out above, that the proposals contained in Voting Paper (63)1 as an alternative to the use of the plenary powers has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 705.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
22 *January* 1964

OPINION 706

AMMODISCUS REUSS, 1862 (FORAMINIFERA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Ammodiscus* Reuss, 1862, are hereby set aside and the nominal species *Involutina silicea* Terquem, 1862, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

- (a) *Ammodiscus* Reuss, 1862 (gender : masculine), type-species, by designation under the plenary powers in (1) above, *Involutina silicea* Terquem, 1862 (Name No. 1594);
- (b) *Involutina* Terquem, 1862 (gender : feminine), type-species, by designation by Bornemann, 1874, *Involutina jonesi* Terquem & Piette, 1862 (Name No. 1595).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

- (a) *silicea* Terquem, 1862, as published in the binomen *Involutina silicea* (type-species of *Ammodiscus* Reuss, 1862) (Name No. 1981);
- (b) *arenacea* Williamson, 1858, as published in the binomen *Spirillina arenacea*, as defined by the lectotype designated by T. Barnard, 1962 (Name No. 1982);
- (c) *liassicus* Jones, 1853, as published in the binomen *Nummulites liassicus* (Name No. 1983);
- (d) *infimus* Strickland, 1846, as published in the binomen *Orbis infimus*, as defined by the lectotype designated by T. Barnard, 1954 (Name No. 1984).

(4) The family-group name AMMODISCINAE (correction of AMMODISCINEA) Reuss, 1862 (type-genus *Ammodiscus* Reuss, 1862) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 367.

(5) The family-group name AMMODISCINEA Reuss, 1862 (type-genus *Ammodiscus* Reuss, 1862) (an incorrect original spelling for AMMODISCINAE) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names with the Name Number 403.

HISTORY OF THE CASE (Z.N.(S.) 1807)

The present case was submitted to the office of the Commission by Dr. W. A. Macfadyen and Dr. T. Barnard in March 1956. After a great deal of correspondence between Dr. Macfadyen and Mr. R. V. Melville (then Assistant Secretary to the Commission) a revised application was sent to the printer on 22 August 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 27–34, pls. 1 & 2. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). The subsequent history of the case is set out in the Secretary's report which was attached to Voting Paper (63)25, and which is reproduced below:

" Dr. Macfadyen's proposals were supported by Dr. Irene McCulloch and Dr. J. Hofker (*Bull. zool. Nomencl.* **20** : 92).

" The proposals were opposed by Drs. A. R. Loeblich and H. Tappan (*Bull. zool. Nomencl.* **20** : 88–91) who put forward counter-proposals concerning the type-species of *Ammodiscus*. The proposals of Loeblich & Tappan were supported by Dr. H. C. Skinner, Dr. Frances L. Parker, Dr. Don L. Frizzell (*Bull. zool. Nomencl.* **20** : 90–92) and by Drs. D. M. Rauser-Chernousova, V. G. Morosova and V. A. Krasheninnikov (*Bull. zool. Nomencl.* **20** : 250).

" Dr. Frizzell quite correctly makes the point that there is no nominal species *Ammodiscus infimus* Bornemann. If the Commission were to vote to achieve the result desired by Loeblich & Tappan the plenary powers would have to be used to designate *Involutina silicea* Terquem, 1862, as type-species of *Ammodiscus*, that species having been misidentified by Bornemann, 1874, as *Orbis infimus* Strickland, 1846.

" The Commission has therefore two alternative proposals before it:

Proposal A—that of Macfadyen in *Bull. zool. Nomencl.* **19** : 32–33.

Proposal B—that of Loeblich & Tappan in *Bull. zool. Nomencl.* **20** : 90, with the following emendations:

For (1) substitute the following:

to use its plenary powers to set aside all designations of type-species for the nominal genus *Ammodiscus* Reuss, 1862, and, having done so, to designate *Involutina silicea* Terquem, 1862, as the type-species of that genus.

For (2)(a) substitute the following:

Ammodiscus Reuss, 1862 (gender : masculine), type-species, by designation under the plenary powers in (1) above, *Involuntina silicea* Terquem, 1862.

" In part 1 of the accompanying Voting Paper, therefore, Commissioners are asked to vote either for or against the use of the plenary powers in the present case. This requires a two-thirds majority for approval.

" In part 2 of the Voting Paper, which requires a simple majority of votes, Commissioners having voted for the use of the plenary powers are asked to choose between two possible ways in which those powers shall be used."

DECISION OF THE COMMISSION

On 24 October 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)25, in Part 1 either for or against the use of the plenary powers in the present case, and in Part 2 either for Alternative A or Alternative B, as set out in the accompanying report (see above). At the close of the prescribed voting period on 24 January 1964 the state of the voting was as follows:

In Part 1. Affirmative votes—twenty-eight (28), received in the following order: China, Hemming, Brinck, Hering, Holthuis, Vokes, Bonnet, Hubbs, Riley, Boschma, Stoll, Lemche, Mayr, Uchida, Simpson, Borchsenius, Miller, do Amaral, Jaczewski, Alvarado, Binder, Forest, Obruchev, Mertens, Kraus, Ride, Sabrosky, Evans.

Negative votes—one (1): Tortonese.

Voting Papers not returned—one (1): Munroe.

In Part 2. Votes for Alternative A—four (4): Hemming, Bonnet, Miller, Binder.

Votes for Alternative B—twenty-four (24): China, Brinck, Hering, Holthuis, Vokes, Hubbs, Riley, Boschma, Stoll, Lemche, Mayr, Uchida, Simpson, Borchsenius, do Amaral, Jaczewski, Alvarado, Forest, Obruchev, Mertens, Kraus, Ride, Sabrosky, Evans.

The following comment was made by Commissioner C. W. Sabrosky in returning his Voting Paper:

" I agree in general with proposal B, but I do not approve of the substitute for (1). In my view, the plenary powers are needed here only because a misidentified type-species is involved (Art. 70a), and not ' to set aside all designations ' and to supply another. On the contrary, I would recognize the technically correct oldest valid type-designation.

" This case clearly fits Article 70a(i) and should be settled on that basis. The proposed substitution reads as if it were being done under Article 70a(ii), which is not really true. I recommend that the wording be revised accordingly, so that the type-species is recognized as originally designated, as *Orbis infimus* Strickland (misident. Bornemann, 1874) = *Ammodiscus silicea* (Terquem, 1862). Or if you prefer, *Ammodiscus*, or *Involutina*, *silicea* Terquem (as *Orbis infimus* Strickland, misident. Bornemann, designated by Loeblich and Tappan, 1954)."

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Index by the Ruling given in the present Opinion:

AMMODISCINAE Reuss, 1862, *SitzBer. Kais. Akad. Wiss. Wien* (Math. nat. Cl.) **44** : 365

AMMODISCINEA Reuss, 1862, an incorrect original spelling for AMMODISCINAE q.v.

Ammodiscus Reuss, 1862, *SitzBer. Kais. Akad. Wiss. Wien* (Math. nat. Cl.) **44** : 365

arenacea, *Spirillina*, Williamson, 1858, *Rec. Foram. Gt. Brit.* : 93, pl. 7, fig. 203

infimus, *Orbis*, Strickland, 1846, *Quart. J. geol. Soc. Lond.* **2** : 31

Involutina Terquem, 1862, *Mém. Acad. imp. Metz.* **42** : 450

liassicus, *Nummulites*, Jones, 1853, *in* Brodie, *Proc. Cotteswold Nat. Field Club* **1** : 243

silicea, *Involutina*, Terquem, 1862, *Mém. Acad. imp. Metz.* **42** : 450

The following is the original reference for the designation of a type-species for a nominal genus involved in the present Ruling:

For *Involutina* Terquem, 1862: Bornemann, 1874, *Z. deutsch. geol. Ges.* **28** : 711

The following are the original references for the designation of lectotypes for two nominal species involved in the present Ruling:

For *Spirillina arenacea* Williamson, 1858 : Barnard, 1962, *Bull. zool. Nomencl.* **19** : 33–34, pl. 1, 2

For *Orbis infimus* Strickland, 1846 : Barnard, 1954, *Ann. Mag. nat. Hist.* (12) **5** : 907

CERTIFICATE

I certify that the votes cast on Voting Paper (63)25 were cast as set out above, that the proposal presented in that Voting Paper as Alternative B has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission is truly recorded in the present Opinion No. 706.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
11 *February* 1964

OPINION 707

ASTERIAS NODOSA LINNAEUS, 1758 (ASTEROIDEA): ADDED TO THE OFFICIAL LIST OF SPECIFIC NAMES

RULING.—(1) The generic name *Protoreaster* Döderlein, 1916 (gender : masculine), type-species, by original designation, *Asterias nodosa* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1596.

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *clavatus* Müller & Troschel, 1842, as published in the binomen *Oreaster clavatus* (Name No. 1985);

(b) *nodosa* Linnaeus, 1758, as published in the binomen *Asterias nodosa*, as defined by the lectotype designated by A. M. Clark, 1962 (type-species of *Protoreaster* Döderlein, 1916) (Name No. 1986).

(3) The generic name *Pentaceros* Schroter, 1782 (published in a work rejected for nomenclatorial purposes) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 1700.

(4) The following entry is hereby made on the Official Index of Rejected and Invalid Works in Zoological Nomenclature with the Title Number 70:

Schroter (J. S.), 1782. *Musei Gottwaldiani testaceorum, stellarum marinarum et coralliorum quae supersunt tabulae*. Nürnberg. (Rejected for nomenclatorial purposes because the author did not apply the principles of binominal nomenclature).

HISTORY OF THE CASE (Z.N.(S.) 1493)

The present case was submitted to the office of the Commission in August 1961 by Miss A. M. Clark. Miss Clark's application was sent to the printer on 20 October 1961 and was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 174–176. The application was supported by Prof. H. Barraclough Fell, Drs. W. I. Follett and Lillian J. Dempster (*Bull. zool. Nomencl.* **20** : 262–263), Dr. F. J. Madsen, Prof. E. Tortonese, Prof. H. Engel.

DECISION OF THE COMMISSION

On 24 October 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)27 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 175–176 and supplemented in *Bull. zool. Nomencl.* **20** : 263. At the close of the prescribed voting period on 24 January 1964 the state of the voting was as follows:

Affirmative votes—twenty-eight (28), received in the following order: China, Hemming, Brinck, Hering, Holthuis, Vokes, Bonnet, Mayr, Tortonese, Hubbs, Riley, Jaczewski, Boschma, Stoll, Lemche, Uchida, Simpson, Borchsenius, Miller, do Amaral, Alvarado, Binder, Forest, Obruchev, Mertens, Ride, Sabrosky, Evans.

Negative votes—one (1): Kraus.

Voting Papers not returned—one (1): Munroe.

Commissioner C. W. Sabrosky made the following comment in returning his Voting Paper: " I vote for this application but would insist that neither the original application nor the supplement should have come before the Commission at all. These are straight applications of the Code, and could be done in an ordinary zoological publication without burdening the Commission."

Original References

The following are the original references for names placed on the Official Lists and Indexes by the Ruling given in the present Opinion:

clavatus, Oreaster, Müller & Troschel, 1842, *System der Asteridien* : 49
nodosa, Asterias, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 661
Pentaceros Schroter, 1782, *Musei Gottwaldiani testaceorum* : 58
Protoreaster Döderlein, 1916, *Zool. Jahrb.*, Syst. **40** : 420–424

The following is the original reference for the designation of a lectotype for a species concerned in the present Ruling:

For *Asterias nodosa* Linnaeus, 1758: A. M. Clark, 1962, *Bull. zool. Nomencl.* **19** : 175

CERTIFICATE

I certify that the votes cast on Voting Paper (63)27 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 707.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
13 *February* 1964

OPINION 708

ARCTOPSIS LAMARCK, 1801 (CRUSTACEA, DECAPODA): SUPPRESSED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) the generic name *Arctopsis* Lamarck, 1801;

(b) the specific name *lanata* Lamarck, 1801, as published in the binomen *Arctopsis lanata*;

(c) the specific name *tribulus* Linnaeus, 1767, as published in the binomen *Cancer tribulus*;

(2) The generic name *Pisa* [Leach, 1814] (gender : feminine), type-species, by monotypy: *Cancer biaculeatus* Montagu, 1813, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1597.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *armata* Latreille, [1802–1803], as published in the binomen *Maja armata*, and as defined by the lectotype designated by Holthuis, 1962 (Name No. 1987);

(b) *nodipes* Leach, 1815, as published in the binomen *Pisa nodipes* (Name No. 1988).

(4) The family-group name PISINAE Dana, 1852 (type-genus *Pisa* [Leach, 1814]) is hereby placed on the Official List of Family-Group Names in Zoology with the name Number 368.

(5) The generic name *Arctopsis* Lamarck, 1801 (as suppressed under the plenary powers in (1) (a) above) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 1701.

(6) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *lanata*, Lamarck, 1801, as published in the binomen *Arctopsis lanata* (as suppressed under the plenary powers in (1) (b) above) (Name No. 795);

(b) *tribulus* Linnaeus, 1767, as published in the binomen *Cancer tribulus* (as suppressed under the plenary powers in (1) (c) above) (Name No. 796).

HISTORY OF THE CASE (Z.N.(S.) 1498)

The present case was submitted to the office of the Commission by Dr. L. B. Holthuis in August 1961. Dr. Holthuis' application was sent to the printer on 20 October 1961 and was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 184–188. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). No objection was received.

DECISION OF THE COMMISSION

On 24 October 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)28 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 187–188. At the close of the prescribed voting period on 24 January 1964 the state of the voting was as follows:

Affirmative votes—twenty-seven (27), received in the following order: China, Hemming, Brinck, Hering, Holthuis, Vokes, Bonnet, Mayr, Tortonese, Hubbs, Riley, Jaczewski, Boschma, Stoll, Lemche, Uchida, Borchsenius, Miller, do Amaral, Alvarado, Binder, Forest, Obruchev, Mertens, Kraus, Ride, Evans.

Negative votes—one (1): Sabrosky.

Voting Papers not returned—one (1): Munroe.

Commissioner G. G. Simpson abstained from voting. Commissioner C. W. Sabrosky made the following statement in returning his negative vote: "I oppose because of my basic objection to use of the machinery of the Commission and the time of Commissioners for disposing of zoological matters. If a name is a nomen dubium, it is dubious and I would leave it so. It is not necessary for the Commission to rule it so. At the London Congress, proposals to place such matters in the Code were rejected."

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

Arctopsis Lamarck, 1801, *Syst. Anim. sans Vertèbr.* : 155

armata, Maja, Latreille, [1802–1803], *in* Sonnini's Buffon, *Hist. nat. gèn. partic. Crust. Ins.* **6** : 98

lanata, Arctopsis, Lamarck, 1801, *Syst. Anim. sans Vertèbr.* : 155

nodipes, Pisa, Leach, 1815, *Zool. Miscell.* **2** : 50

Pisa [Leach, 1814], Brewster's *Edinb. Ency.* **7** : 431

PISINAE Dana, 1852, *U.S. explor. Exped.* **13** (1) : 79

tribulus, Cancer, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1** : 1045

The following is the original reference for the designation of a lectotype for a nominal species concerned in the present Ruling:

For *Maja armata* Latreille, [1802–1803]: Holthuis, 1962, *Bull. zool. Nomencl.* **19** : 186

CERTIFICATE

I certify that the votes cast on Voting Paper (63)28 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 708.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
13 *February* 1964

OPINION 709

DENDRASPIS FITZINGER, 1843 (REPTILIA): SUPPRESSED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Dendraspis* Fitzinger, 1843, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Dendroaspis* Schlegel, 1848 (gender : feminine), type-species, by monotypy, *Elaps jamesonii* Traill, 1843 (Name No. 1598);

(b) *Ophiophagus* Günther, 1864 (gender : masculine), type-species, by monotypy, *Hamadryas elaps* Günther, 1858 (Name No. 1599).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *jamesonii* Traill, 1843, as published in the binomen *Elaps jamesonii* (type-species of *Dendroaspis* Schlegel, 1848) (Name No. 1989);

(b) *hannah* Cantor, 1836, as published in the binomen *Naja hannah* (Name No. 1990).

(4) The generic name *Dendraspis* Fitzinger, 1843 (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 1702.

HISTORY OF THE CASE (Z.N.(S.) 1500)

The present case was submitted to the office of the Commission by Professor Dr. Robert Mertens in August 1961. Professor Mertens' application was sent to the printer on 26 October 1961 and was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 189–190. Public Notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two herpetological serials. The proposals were supported by Professor Hobart M. Smith.

DECISION OF THE COMMISSION

On 24 October 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)29 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 190. At the close of the prescribed voting period on 24 January 1964 the state of the voting was as follows:

Affirmative votes—twenty-nine (29), received in the following order: China, Hemming, Brinck, Hering, Holthuis, Vokes, Bonnet, Mayr, Tortonese, Hubbs, Riley, Boschma, Stoll, Lemche, Uchida, Simpson, Jaczewski, Borchsenius, Miller, do Amaral, Alvarado, Binder, Forest, Obruchev, Mertens, Kraus, Ride, Sabrosky, Evans.

Negative votes—none (0).

Voting Papers not returned—one (1): Munroe.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion.

Dendraspis Fitzinger, 1843, *Syst. Rept.* : 28

Dendroaspis Schlegel, 1848, *Over Elas jamesonii Traill* etc., Natura Artis Magistra 1848 : 5

hannah, Naja, Cantor, 1836, *Asiat. Research* **19** (1) : 187

jamesonii, Elaps, Traill, 1843, *Edinb. new phil. J.* **34** (66) : 54

Ophiophagus Günther, 1864, *Rept. Brit. Ind.* : 340

CERTIFICATE

I certify that the votes cast on Voting Paper (63)29 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 709.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
13 *January* 1964

GENDER OF GENERIC NAMES ENDING IN *-OPS* (Z.N.(S) 1572)

By Afrânio do Amaral

(*Director, Instituto Butantan, S. Paulo, Brazil*)

At the XIV I.C.Z. (Copenhagen, 1953) I voted in favour of the " Revised Rules " for determining the gender of generic names. Rule (b)(III) based on Proposal 84, provision 7, of that document considers feminine in gender all names having the final term *-ops* or *-opsis* obviously derived from the corresponding Greek word. In the discussion following publication of " Copenhagen Decisions on Zoological Nomenclature " I insisted on the maintenance of that rule. And when the time came for voting on its revision I presented, on 20.XI.57, the following Declaration of Vote (V.P.(57)63:—

> " Having deeply investigated the various linguistic aspects of this case in the light of the arguments set forth in Z.N.(S.) 1020 and Z.N.(S.) 1206, I am convinced, as explained in my letter of 25.VI.57, that evidence points rather to the feminine as the gender preferably to be attributed to generic names in *-ops* (meaning " a face " or " an eye ") from the Greek ὄψ or ὤψ, the latter being probably a metric variant of the former.
>
> I favour the maintenance of the rule the Copenhagen Congress has laid down, that names having the termination *-ops* should be treated as being feminine.
>
> Therefore, I vote against the proposal submitted with V.P.(1957)63 and formulated in Z.N.(S.) 1276 ".

Now that the very question of the gender to be attributed to all generic names ending in *-ops* was raised again, in a conflicting manner through Case No. 18 (B.Z.N.1963, 20, **1** : 73), to be considered at the XVI I.C.Z. (Washington, 1963), I feel I am bound, both as a zoologist and as a former teacher of Greek and Latin, briefly to give the reasons for my vote.

Linguistic Analysis

A.—In the light of the Code of Zool. Nomenclature, " a genus-group name must be a noun in the nominative singular or be treated as such ".

B.—The final term *-opsis* of several generic names merely represents the transliteration of a Greek noun. This noun is ὄψισ (meaning *aspect*, *appearance*, *face*, *view*, *sight*, etc.) the termination (—ψισ) of which connotes the action exerted by the verb; and that action signifies *appearing* or *seeing* (root oπ, verb ὄψομαι). But ὄψισ, having always been treated as feminine in Greek (Vide, f.i., Friedrich Preisgke, Wörterbuch d. griechischen Papyruskunde, Ed. Hubert & Co., Göttingen. Berlin 1927. **2** : 217; and Brighenti, E.—Diz. Greco-Moderno-Italiano, etc. Ed. U. Hoepli, Milano 1927, **1** : 457), is out of discussion in the present Case.

C.—The final term *-ops* of generic names represents:—(a) as a rule, the transliteration of either form ὄψ or ὤψ of a Greek noun, both meaning *aspect*, *face*, *appearance*, *eye*, etc. (root oπ, verb ὄψομαι); (b) as an exception, the transliteration of ὄψ, a homonym of ὄψ as in (a) but meaning *voice*, *word* (cognate with ἔποσ, verb εἰπεῖν). Since in animal classification a generic name ending in *-ops* (so as to express " voice " as a group character) would hardly be thought of, as virtually inapplicable, there remain for analysis the aforesaid forms of *-ops* meaning *aspect*, *face*, *appearance*, *eye*, etc.

At this point one must distinguish between—(1) *ŏps* (ὄψ) and (2) *ōps* (ὤψ) in order to establish what gender is attributable to a generic name under consideration:—

(1) The first, *ŏps*, is nothing else than the contracted form of *opsis* (ὄψισ) as the illiterate people are always apt to confuse them in pronunciation; like *opsis* it has always been considered a feminine noun in Greek.

(2) The second, *ōps*, as the poetic form of *ŏps* (ὄψ, root οπ, verb ὄψομαι) probably was introduced into classical Greek both by Homer (9th cent. B.C.) and Hesiod (8th cent. B.C.); it was only applied by them in the accusative singular as part of the expression εἰσ ὦπα meaning *in face*. In every case it seems to have been used by them, instead of the normal form *ŏps* (ὄψ), as a matter of metric convenience as we can ascertain by scanning the following Homer's verses:—

(a) αἰνῶσ ἀθανάτῃσι θεῇσ εἰσ ὦπα ἔοικεν (Iliad **3** : 158)
(b) τετλαίῃ κυνέοσ περ ἐών εἰσ ὦπα ἰδέσθαι (,, **9** : 373)
(c) αὐτάρ ἐπήν ἔλθῃτε, Διόσ τ' εἰσ ὦπα ἴδῃσθε (,, **15** : 147)
(d) γνώμεναι · ὸν μέν γάρ τι κακῷ εἰσ ὦπα ἐῴκει (Odyssey **1** : 411)
(e) αἱματόεντα πέλει, δεινόσ δ'εἰσ ὦπα ἰδέσθαι (,, **22** : 405)
(f) οὐδ'εἰσ ὦπα ἰδέσθαι ἐναντἰον.Εἰ δ'ἐστέον δή (,, **23** : 107)

Indeed, should the prosaic form ὄψ have been used in these hexameters, the 5th foot in (a), (b), (c), (d) and (e) and the 2nd in (f) would all have been made up of three short syllables thus completely breaking the rhythm of those beautiful verses, a fault unimaginable in Homer. This argument holds good for the remaining example given by H. G. Liddell & R. Scott (Greek-English Lexicon. Ed. Clarendon Press, Oxford 1951. **2** : 2.042), viz., Hesiod—Opera et Dies : 62, where the dactyl ὦπα ἐ would also have become a tribrach, and this is another impossibility, now on the part of Hesiod.

In connexion with the poetic form ὤψ, two other questions require separate examination:— (I) the inflexional plural form; (II) the gender and meaning.

(I) *Plural*—Admittedly, ὤψ, as a 3rd declension noun, has two plural forms:— the normal ὦπεσ (nom.; ὦπασ, acc.); and the abnormal ὤπα (nom. and acc.) which is found in Plato-*Cratylus*: 409C:— ὅτί τά ὦπα ἀναστρέφειν (" because it (the bright light) causes the eyes to turn away ").

(II) *Gender and meaning*—The gender varies according to the number and meaning of that noun. (a) In the singular:— while denoting *face*, *aspect*, *appearance*, it is generally considered feminine; but, while meaning *eye*, *view*, *sight*, it is employed as masculine. (b) In the plural (in which case both the normal form ὦπεσ and the abnormal form ὦπα have only the meaning of *eyes*, *views*) the normal form is masculine, whilst the abnormal form is neuter in the only known example existing in the literature and this is just Plato's (in *Cratylus* : 409C) above quoted expression.

Finally, two more points must be emphasized with a view to facilitating the general comprehension of such an intricate matter, to wit:—

(a) In Nomenclature no *plural form* has application, since *a generic name*, by definition, must be a noun in the nominative *singular*. Therefore, our choice becomes confined or restricted, lying now, as it does, only between the feminine *singular* and the masculine *singular* as denoting the gender to be ascribed to any composite noun under consideration to define a genus.

(b) Should the final term *-ops* of the generic name have the connotation of " eye " or " sight " as the outstanding character chosen for defining an animal genus, then its gender may be considered masculine. Otherwise, that is, where it connotes " aspect " or " face " as the chosen generic character, then the gender of the composite noun is feminine.

Comment

Fortunately, only in very rare instances will the " eye" character be used to define a genus since it is so liable and likely to change so often and so deeply, following death and preservation of animals (– and virtually all taxonomic zoological work is based on preserved specimens –), that, for *practical purposes*, we can arrive, through successive eliminations, at establishing the following *general rule:*— where the final term of the generic name is *-ops* (either from ὄψ = *ŏps* or from ὤψ = *ōps*), the composite noun, corresponding to that generic name, is feminine, particularly where such a termination (*-ops*) conveys the idea of " aspect " or " face ". This apparently represents the great majority of the cases to be dealt with in Zoological Nomenclature. Therefore, in as much as the *masculine* gender represents the *exception* in this case, it would be linguistically incorrect to use it as the basis of the gender *rule* for names ending in *-ops*.

In order to make the matter still easier for those not versed in such linguistic complexities, it could even be ruled that the word ὤψ (*-ōps*), being but a *poetic form* of ὄψ (*-ŏps*), need not be considered in gender determination for Zoological Nomenclature purposes. This would leave for consideration, as the final term *-ops* in generic names based on Greek composite nouns, only the word ὄψ (*-ŏps*). But this is no problem, since ὄψ, meaning either " face " or " eye ", is strictly feminine.

The divulgation of the fact that even the gender of ὤψ (meaning *aspect*) is feminine is generally imputed to Gaisford (in Etymologicum Magnum, 1848). This assumption notwithstanding, that very gender is given in such old editions of renowned lexicons as the following:—

1. Henricus Stephanus—Thesaurus Graecae Linguae. Ed. F. Didot, Paris 1572, vol. 8, p. 2150
2. Fridericus Sylburgius—Etymologicum Magnum. Ed. H. Commelini, Heidelberg 1595, p. 139 (col. 4).

Concerning modern dictionaries, particularly any of those easily available at scientific institutions according to national preference, the following (besides the noted H. G. Liddell & R. Scott—*loc. cit.*) may be quoted as giving *ōps* (ὤψ, singular) only the feminine gender:—

1. Bailly, A.—Dict. Grec-Français, Ed. Hachette & Cie, Paris 1902, p. 2193

2. Boisacq, E.—Dict. Étymol. L. Grecque, Ed. C. Winter, Heidelberg 1950, p. 1085
3. Demetrakos, D.—Méga Lexikón t. Hell. Gloss., Ed. D. Demetrakos, Athens 1950, vol. 9, p. 8056
4. Hofmann, J. B.—Etymol. Wörterb. d. Griechischen, Ed. Oldenbourg, München 1949, p. 432
5. Rocco, L.—Vocabol. Greco-Italiano, Ed. D. Aleghieri & S. Lapi, Genova 1943, pp. 1384, 2074
6. Yarza, F. S.—Dicc. Grieco-Español, Ed. R. Sopena, Barcelona 1954, pp. 1001, 1547.

At present it seems quite impossible to ascertain the veracity of certain documents related to ancient Greek (so as to prove or disprove various statements found in the literature) particularly on account of the fact that in its long evolution the language of Homer and Hesiod, Aristoteles and Plato suffered from strange and deforming influences, the Byzantine being among the first and most important ones.

Mythological Names

There remains for examination the gender to be attributed to those *ops*-ending names of mythologic or historic origin such as *Cecrops*, *Cercops*, *Cyclops*, *Glaucops*, *Merops*, *Pelops*, etc, all of which pre-existed in Greco-Latin literature as composite nouns applied to men or masculine deities. The gender of all these names was also pre-determined in the language that first used them. Being normally applied to real or hypothetical male beings, such names have always been treated as masculine proper names. Vide:—

1. Buttmann, Ph. K.—Lexicologus o. Beitr. z. griech. Wort-Erklärung. Ed. Berlin 1867, p. 67
2. Stephanus, Henricus—loc. cit., vol. 8, p. 2150.

MAIN POINTS

(1) A generic name (singular, by definition) cannot be based on the *plural* of any etymon.

(2) A *rule* in nomenclature cannot be based on the *poetic form* (usually representing a licence or *exception*) of any etymon.

COMMENTS ON THE GENDER OF GENERIC NAMES ENDING IN -OPS. Z.N.(S.) 1572

By C. W. Sabrosky (*U.S. Department of Agriculture, Entomology Research Division, Washington, D.C., U.S.A.*)

I find that there are 56 generic names ending in *-ops* used in our Diptera catalog, out of 3411 genus-group names cited (including synonyms) and this is a fairly sizable sample. Names ending in *-ops* will be found to be common among the Insecta in general. Of these 56, 22 clearly refer to the eyes (*Chrysops*, *Chlorops*, *Lasiops*, etc.) and 28 to face or aspect, with 6 uncertain. Thus those based clearly on eyes form a good sized proportion, though not a majority, and this hardly fits do Amaral's statement (under "Comment") that "only in very rare instances will the 'eye' character be used to define a genus". I went back to the original proposal for each name, and note that the exact derivation from the Greek is rarely given, though the generic description often makes clear the basis for the name (e.g. *Lasiops* because of the hairy eyes).

I am also impressed by the masculine uses in Greek—*Cyclops* and *Merops*, for example, and common nouns such as *elops*, a large fish, and *konops*, a gnat (this *conops* referring to face and not to eyes, by the way). The two latter were surely not poetical or mythological uses.

Elops is not a true compound with *-ops*, but the fact that this too is masculine reinforces rather than diminishes the argument for uniform treatment of *-ops* names as masculine. If the Greeks intentionally used *-ops* names as masculine, are we not justified in following them in our nomenclature? Even if their *-ops* names were derived from *-opsis*, feminine, are we required to go back on the usage from which we take our names (*Cyclops*, *Merops*, etc.) and follow the gender of the word from which masculine *-ops* was derived? Is this a dangerous principle? Perhaps there are other words that have also changed gender in derivation? Are we opening a Pandora's box?

The short *-ops*, normally meaning sound or voice, is probably never the basis of a generic name. It was once suggested that it might have been used in Aves, but Dr. Alexander Wetmore and I once checked a long list of bird names, and they do not refer to voice (e.g., *Triops*, *Ostinops*, *Zosterops*, *Tetragonops*, *Stigmatops*, *Loxops*, *Scythrops*, *Cyanops*, *Ortyops*, *Ixops*, *Gymnostinops*).

Usage is thoroughly mixed and hopeless, and an arbitrary decision seems the only way out. As a sample of usage, the deer flies, genus *Chrysops*, were clearly named by Meigen from the eye color: "von *Chrysos* Gold und *Op* Auge zusammengesetzt", and he used *Chrysops* as masculine. Yet here is a sample of modern usage:

Feminine: Predominant North American usage 1935 to date (Brennan, 1935, revision of genus; Philip, 1947, Nearctic catalogue); Schuurmans Stekhoven (1926, Tabanidae of Dutch East Indies); catalogue of Diptera of Chile (Stuardo, 1946); Mackerras (1955, distribution and classification of Tabanidae of world); Oldroyd (1957, horseflies of Ethiopian Region); Edwards, Oldroyd and Smart (1939, British Blood-sucking flies). A large amount of modern influential usage.

Masculine: Kloet and Hincks (1945, Check list of British Insects); Olsoufiev (1937, Tabanidae in Fauna USSR); usage of Séguy of Paris Museum in several major works (e.g. 1950, La Biologie des Diptères). Surcouf (1921, Tabanidae, in Genera Insectorum); Kröber (1925, Tabanidae in Lindner, Die Fliegen der Palaearktischen Region); Enderlein (1936, Diptera, in Die Tierwelt Mitteleuropas). All are major and significant works.

Actually Meigen, the author of *Chrysops* is himself a sample of confusion. He used *Chrysops* (gold eye) as masculine, but *Chlorops* (green eye, also a fly) as feminine.

An example of the confusion that is certainly not a mnemonic aid is in the use of names in Diptera based on konops. Konops, a gnat, is masculine, and names for gnat genera such as *Leptoconops* and *Styloconops* have been used as masculine. But the Linnaean genus *Conops* was used as feminine by Linnaeus. Since it was given to a large fly, not a gnat, it may be presumed to have been derived from a " cone-head ", or " conical face " meaning which fits. But then we would have the incongruous (on the face of it) situation of *Conops*, *Physoconops*, *Gyroconops*, etc. being feminine, and *Leptoconops*, *Styloconops*, etc. being masculine.

Certainly in the Insecta, the use of *-ops* meaning eye or view, with masculine gender, is by no means the " exception " as do Amaral has stated. There are many characteristics of eyes evident in dead specimens—size, shape, divided, notched, hairy, even sometimes color and color pattern—which are perfectly evident on dead museum specimens and have given rise to such names as *Dasiops*, *Lasiops*, *Goniops*, *Henops*, *Lejops*, *Porphyrops*, *Thricops*, *Cephalops*, *etc*. I believe that do Amaral has minimized this use too much in arriving at his contention that the feminine gender should be made the general rule for practical purposes. I may note also that whatever gender is adopted, a great deal of change will be required, as shown by the divided usage on *Chrysops* cited above.

By Jasper Griffin (*Balliol College, Oxford*)
Classical Adviser to the International Trust for Zoological Nomenclature

At the moment, Article 30 of the International Code of Zoological Nomenclature lays down that the gender of names ending in -ops should vary, according to which of two Greek words was its model; names derived from ὄψ, " voice ", being feminine, and words derived from ὤψ, " eye ", being masculine. It appears that all parties to the correspondence are agreed that this situation is undesirably complex, and that all these names should be allotted to one gender, the question at issue being which gender to choose.

First, there seems to be no reason to suppose that the two Greek words involved were not originally separate words. Dr. do Amaral suggests that ὤψ is no more than a by-form of ὄψ. This is not the view of most modern philologists, and is made very unlikely by the fact that from the earliest period both words had separate families of compound words depending on them, distinguished by the length or shortness of the vowel *o*. Consequently, the argument that the gender of the Greek word ὄψ, which is feminine, has a unique claim on our attention, must surely fail.

Second, the gender of ὤψ, " eye ", the Greek word which seems to be considerably the more prolific of the two in zoological nomenclature. It does not emerge satisfactorily from the ancient authors. The word was poetic and rare. In the early poets, it is never so used as to show the gender. Hence it became a matter of dispute among the late Greek grammarians, and we find both the masculine and the feminine upheld in extant grammatical works of ancient origin. In all probability, neither rested on any solid foundation. I therefore agree with Mr. Sabrosky when he says, " An arbitrary decision seems the only way out ". We are at liberty, that is, to choose either gender.

None the less, I think there are sufficient reasons why the masculine should be preferred. The Greeks themselves formed compounds with the word ὤψ fairly freely, and these compounds shew an overwhelming preference for the masculine gender. When such compounds as *glaucops*, " owl-eyed ", or *euops*, " fair of face ", are used with feminine nouns, they appear in a separate form ending in -opis. The situation is the same in the case of personal names. There occur 16 personal names ending in -ωψ, and 23 in -οψ, in B. Hansen, Rückläufiges Wörterbuch der griechischen Eigennamen, (Berlin, 1957), where the gender can be determined. Not one is feminine. To take an example of a pair both of which occur, the masculine name Charops is answered by the feminine name Charopeia.* And above all, such generic names as occur are masculine; thus Cyclops, " round-eye ", and Aithiops, " burnt-face ", an Ethiopian.

Moreover, not all Greek words ending in -ops are connected with either ὤψ or ὄψ. Thus the word *epops*, " hoopoe ", appears to be merely onomatopoeic, while *conops*, " mosquito ", is derived from the name of the Egyptian town Canopus, (H. Frisk, Griechisches etymologisches Wörterbuch, *in progress*). The Greeks made both these words masculine, also, to conform with the normal gender for words with this ending.

It appears, then, that the masculine gender was the regular one for Greek words ending in -ops, whether derived from ὤψ or not, and regardless of the original gender of ὤψ itself. I therefore agree with the proposal that all names ending in -ops should be regarded as masculine.

By Afranio do Amaral (*Director*, *Instituto Butantan*, *S. Paulo*, *Brasil*)

In my previous article on Case No. 18, written in an impersonal and simplified manner endeavouring to render the matter easily comprehensible, I touched only lightly on a few philologic aspects that I deemed to be worth consideration.

Having now been nominally cited in the comment Mr. J. Griffin was asked to prepare for publication in this Bulletin; and having, in the meantime, indirectly learned of the existence of letters Prof. Grensted wrote to the Secretariat on this very Case but to the content of which I did not have access, I am bound to write the present complemental Note not only to confirm my previous findings and conclusions but briefly to clarify, through an objective, unbiased analysis, some arguments that have since been adduced, in the hope of thus touching, for the benefit of your readers, on all the important aspects wherewith those documents may have dealt. In so doing, I shall try orderly to consider the main question involved in such a complex subject.

Poetic form—In his comment, Mr. Griffin was so kind as to admit that " the word† was poetic and rare. In the early poets, it is never so used as to shew the gender ". My thesis, my linguistic main contention, which aimed at the enlightenment of nomenclaturists, has thus been confirmed. However, may I now add that, in my unauthoritative view, " the dispute among the late Greek grammarians " resulted from the fact that such a word was, for a few

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* See further P. Chantraine, La Formation des Noms en Grec ancien, (Paris 1933), pp. 257–260.

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† *ōps*.

centuries, used as a defective noun having no singular nominative form that could settle the question for good and all. The nominative form *ōps* must have appeared in those Grammarians' productions as a mere inference from other case forms (*ōpa*, *ōpas*, etc.) created at Homer's remote period for metric convenience.

In the light of recent bibliographic and historic researches, the first appearance of that form (*ho ōps*) occurred in Aretaeus' treatise on the treatment of acute and chronic diseases (Peri therapeias oxeōn kai khronikōn pathōn). But this medical work, written in the Ionic dialect, was published late in the 2nd century A.D., thus corresponding to the end of the Graeco-Roman period of Greek literature. It is far, both in time and quality, from complying with the Code's (art, 29(a) (i)) requirement, since it could not be (and has never been) considered a classical " ancient Greek " publication.

Note: Several zoologists and nomenclaturists (including myself), called to expound their opinion on the gender attributable to *ōps*, " eye ", had to resort to zoo-statistical indications to uphold their preference about the masc. or the feminine gender. Although the available statistics show the eye-meaning examples to represent the minority (exception), it has been found that the *-ops* meaning has not been, in a great many zoological generic names, clearly stated by their authors or cannot any longer be the object of an accurate, reliable and complete computation. Fortunately for us, that finding, relative to the inexistence of the nominative singular *ōps*, " eye ", in " ancient Greek " removes that difficulty and clearly establishes the impossibility of *ōps* as a consequent in zoo-generic names being considered masculine.

Nominative form—Moreover, since that noun had no nominative singular form in ancient Greek, that very word cannot be invoked as a part of any genus-group name, which the Code (art. 11(f)) requires to be a noun in the " nominative singular " or be treated as such.

Ŏpsis—ŏps—The connexion between these two nouns may be seen, for instance, in the proper name *Aethiops*, the consequent of which comes from opsis, " face ", apud Scheller (Riddle transl.) Tot. Latinitatis Lexicon, Oxford, 1875.

Ŏps—ōps—This connexion may be traced, in the evolution of their simplified etymon *op*, through the Greek and other Indo-European languages. It is considered in Greek as a case of quantitative alternacy, which is manifest in the inflexion that root shows, e.g., in one of the three etyma intervening in the formation of the corresponding verb *oraō* " to see ": fut. *opsomai* vs. aor. *ōpsamēn*; pass. fut. *ophthēsomai* vs. pass. aor. *ōphthēn*.

Gender—Concerning proper and common names, I may say that, in the light of the fundamental conception of " gender " (A. Meillet—Introd. Étude Comparat. Langues Indo-Européennes, Paris, 1937), Greek nouns ending in *-ops* are masculine when they define beings (men, heroes, deities, myths, animals) that are considered male. Otherwise, they are feminine. This well-known fact even explains why the " masculine gender " is attributed by all lexicographers, including modern ones, to names in *-ops* (*Cercŏps*, *Dolŏps*, *dryŏps*, *ellŏps*, etc.), in spite of *ops* (meaning " eye " and " aspect ") being strictly feminine in Greek. As to *Cerŏps* and *Dolŏps* it would really be astonishing in face of the essential connotation of " gender " should any competent linguist consider these names as feminine on account of their termination. *Vice-versa*, a name in *ōps* (in the hypothesis of this being masculine when meaning " eye ") such as *Glaucōps*, " blue-eyed ", would be feminine when defining a female deity.

This gender argument, therefore, is out of the question. It is inapplicable to clarify the present nomenclatural issue.

Note: In the case of the proper noun *Merŏps*, which is masculine, the consequent comes from the simplified etymon *oks* (*ops*) meaning " voice ", *ŏps* being strictly feminine also with that signification. A deeper analysis of the facts involved in these examples of gender discloses *ŏps* to have come from two different roots: OK* (>OP), Lat. *ŏc-ulus*, Gr. *ŏps-is* and WOK* (>–^{v}OKS), Lat. *vox*, both of which admit quantitative alternacy inflexion. Their approaching under *ŏps* seems to have been realized through the flexional forms *osse* (>*okje*) of the former and *ossa* (>*oksa*) of the latter. Moreover, that alternacy lies within the boundaries of another well-known linguistic phenomenon, called vocalism variation (F. Sommer—Hb. Latein. Laut—u. Formenlehre, Heidelberg, 1948), which has also been invoked to explain the *ŏps*—*ōps* connexion.

Dictionaries—To the list of easily available lexicons (in several modern languages) all giving *ōps* (sing.) as a fem. noun, as cited in my previous article, the following may be added: Pape, W.—Griech.—Deutsch. Wörterbuch, Brunswig, 1880.

In my list I have included the principal lexicons that are considered " standard dictionaries " on Greek, as required by the Code (art. 30(a) (i)).

Summary—The fundamental glottologic and nomenclatural aspects of this question may now be briefly summarized, thus:

1. The term *ōps* with the " eye " connotation cannot, under the Code, be invoked in Zoological Nomenclature because its " nominative singular " form did not exist in " ancient Greek ".
2. The only etymon correctly to be attributed, under the Code, to *-ops* ending generic names is *ŏps*, which is strictly feminine with the triple connotation of " eye ", " aspect " and " voice ".
3. This linguistic and logic conclusion seems to satisfy the aspiration of all Commissioners and zoologists at large, with whom I have corresponded of late, after a simplified " decision to assign a single gender to all such names regardless of the linguistic derivation of these names " (Holthuis' own words) or " a Ruling that makes things as easy to handle as ever possible " (Lemche's expression), as a way " to avoid the wholly unnecessary effort of remembering which one is masculine and which one is feminine " (Follett's feeling).

Final remarks—This simplified solution has the great advantage of not being arbitrary. It is scientifically correct. In view of the growing opposition the work of the Nomenclature Commission is encountering, as voiced from many a quarter, it seems to be unwise and untimely for us again to give a demonstration of absolutism and, based on false premises, make use of the plenary powers against the reinstatement of Copenhagen Rule (b) (III) arising out of Proposal 84, Provision 7, which was linguistically correct and entirely unbiased. It must be remembered that the present Nomenclature has already been called " a kind of a monster; virtually there is no longer a zoologist who could easily locate and interpret the rule he intends to apply ". Zoological Nomenclature has already passed sufficiently stormy and dangerous trials—such as those arising from national rivalry, interpretation of *liberum veto*, application of the priority law and, lately, the questions over *nomina conservanda* and *nomina oblita*—to be risked by our Commission through the unjustified use of the plenary powers in this case.

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* Simplified, for use of non-specialists, respectively from OK^{w} and WOK^{w} (A. Meillet & J. Vendryes – Tr. Gramm. Comparat. Langues Classiques, Paris, 1948)

LINGULA BRUGUIÈRE, [1797] (BRACHIOPODA, INARTICULATA); PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS. Z.N.(S.) 1598

By A. J. Rowell (*Department of Geology, University of Nottingham*)

The well known inarticulate brachiopod genus *Lingula* Bruguière, [1791], type-genus of the family-group taxon LINGULIDAE Menke, 1828, is seemingly based on a misidentified type-species and in accordance with the Code (Arts. 41 and 65) the case is submitted to the International Commission with an appeal for the use of the plenary powers to designate a type-species which will ensure stability of usage of the generic name.

2. The generic name *Lingula* was published by Bruguière in the " Tableau Encyclopédique et Méthodique des Trois Règnes de la Nature. Vers, Coquilles, Mollusques et Polypiers ", pl. 250. This work was issued in several parts, but according to Sherborn and Woodward, (1906, p. 581), the section consisting of plates 190–286 was published in 1797. Neither definition nor description of *Lingula* was provided, but the name is available from that date since it was accompanied by three illustrations (Bruguière, [1797], pl. 250, fig. 1a, 1b and 1c). There were no originally included species.

3. In the " Tableau Encyclopédique et Méthodique, etc. Liste des objets ", p. 151 (published in 1827 according to Sherborn and Woodward, 1906, p. 581) fig. 1 of pl. 250 (published 30 years earlier) is said to be of *Lingula anatina*. This has probably led some authors (e.g. Hall and Clarke, 1892, p. 5; Goryansky, 1960, p. 174) to regard *Lingula anatina* Lamarck as the type-species of the genus. However, under the Code, Art. 69(a) (ii) (2) the type-species is *Patella unguis* Linnaeus, by subsequent monotypy, Cuvier, [1797], p. 435. Cuvier spelt the generic name *Ligula* on page 435, but this appears to have been an " incorrect subsequent spelling " rather than an " emendation " for the name is correctly spelt in the index to the work on page 705. *Patella unguis* has been accepted as the type-species of the genus by many workers including Thomson 1927, p. 124 and Cooper, 1944, p. 285 and has commonly been regarded as a synonym of *Lingula anatina* (Thomson, 1927, p. 124; Goryansky, 1960, p. 174).

4. *Patella unguis* was erected in 1758 by Linnaeus (p. 783) who also cited references to two figures, " Rumph. mus. t. 40. f. L " and " Pet. gaz. t. 32 f. 9 ". The citation of these two references has been the cause of considerable confusion for one figure (Petiver, 1704, Tab. XXXII, fig. 9) is of a species of *Lingula* from the Philippines, the other (Rumphius, 1705, pl. XL, fig. L) is of a gastropod, which in current usage would be referred to the genus *Scutus* de Montfort, 1810 (Lamy and André, 1941, p. 190). Although this situation has been realised since at least 1855 (Hanley, 1855, p. 425) the binomen *Patella unguis* has continued to be employed for both gastropod and brachiopod.

5. Hanley (1855, p. 425) claimed that there were no specimens of *Lingula* in the Linnean cabinet and that the " marked type " of *Patella unguis* in that collection was a gastropod. Hanley clearly regarded this specimen as what today would be called a lectotype and Lamy and André (1941, p. 190) accept

this specimen, which still exists in the Linnean Collection of the British Museum (Natural History), as the " type " of *Patella unguis*.

6. Cuvier ([1797], p. 435) in designating *Patella unguis* as the type-species of *Lingula* " mis-identified " the species, regarding it as a brachiopod, for under the Code, the genus *Lingula* Bruguière, [1797], types-species *Patella unguis* Linnaeus, is a gastropod and a senior subjective synonym of *Scutus* de Montfort, 1810.

7. To prevent the confusion which would arise from strict application of the Code and to preserve the continuity of meaning of the nominal family-group taxon LINGULIDAE, it is desirable that the plenary powers be used to designate a type-species in harmony with the present usage of the generic name *Lingula*. The most suitable species is seemingly *Lingula anatina* Lamarck, 1801, p. 141, which previously has erroneously been regarded as the type-species.

8. In view of the facts set out in the proceeding paragraphs, I request the International Commission on Zoological Nomenclature:

(1) to use its plenary powers
  (a) to set aside all type selections for the genus *Lingula* Bruguière, [1797], made prior to the Ruling now asked for and
  (b) having done so, to designate *Lingula anatina* Lamarck, 1801 as type-species of the foregoing genus;
(2) to place the following name on the Official List of Generic Names in Zoology: *Lingula* Bruguière, [1797] (gender : feminine) (type-species by designation under the plenary powers under (b) above: *Lingula anatina* Lamarck, 1801);
(3) to place the following name on the Official List of Specific Names in Zoology: *anatina* Lamarck, 1801, as published in the combination *Lingula anatina* (type-species of *Lingula* Bruguière, [1797];
(4) to place the following name on the Official List of Family Group Names in Zoology: LINGULIDAE Menke, 1828 nom. correct. Gray, 1840, *ex* LINGULACEAE Menke, 1828 (type-genus *Lingula* Bruguière, [1797]).

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AXOPORA MILNE EDWARDS & HAIME, 1850 (HYDROZOA, MILLEPORINA): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1610

By H. Boschma (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

The object of the present application is to ask the International Commission to validate, under its plenary powers, the generic name *Axopora* Milne Edwards & Haime [1850], by suppressing the generic name *Holaraea* Milne Edwards & Haime, 1849.

2. Milne Edwards & Haime, 1849 (*C. R. Acad. Sci.*, Paris **29** : 259) founded the genus *Holaraea*, giving as an example the species *Alveolites parisiensis* Michelin [1847] (*Iconogr. zoophyt.* : 166) which thereby became the type of the new genus. The same authors ([1850], *Monogr. Brit. foss. Corals:* lix) described the genus *Axopora* with the typical species *Geodia pyriformis* Michelin, ([1847] : 178). In 1851 (*Arch. Mus. Hist. nat.*, Paris **5** : 151) Milne Edwards & Haime placed *Holaraea* in the synonymy of *Axopora*.

3. Apart from the two publications by Milne Edwards & Haime cited above the name *Holaraea* seems to have been used as an accepted generic name in only one publication, namely d'Orbigny, 1850 (*Prodr. Paléont.* **2** : 405) who spelled the name *Holaroea*.

4. In the period between 1851 and the present time the name *Axopora* has been used as the recognised generic name of the group of fossil corals dealt with here in at least thirty-four publications, as cited by Boschma (1963, *Proc. K. Ned. Akad. Wet.*, Amsterdam **B 66** : 107–117); the name *Holaraea* occurring in some of the publications as a synonym only.

5. Boschma (1951, *Zool. Verh. Leiden* **13** : 2) founded the family AXOPORIDAE to include the genera *Axopora* and *Diamantopora* Weissermel, 1913 (*Beitr. geol. Erf. deutsch. Schutzgeb.* **5** : 108). To avoid confusion on account of a possible resurrection of the name *Holaraea*, the International Commission on Zoological Nomenclature is asked:

(1) to use its plenary powers to suppress the generic name *Holaraea* Milne Edwards & Haime, 1849, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Axopora* Milne Edwards & Haime [1850] (gender : feminine), type-species, by original designation, *Geodia pyriformis* Michelin, [1847], on the Official List of Generic Names in Zoology;

(3) to place the specific name *pyriformis* Michelin, [1847], as published in the binomen *Geodia pyriformis* (type-species of *Axopora* Milne Edwards & Haime, [1850]) on the Official List of Specific Names in Zoology;

(4) to place the family-group name AXOPORIDAE Boschma, 1951 (type-genus *Axopora* Milne Edwards & Haime, [1850]) on the Official List of Family-Group Names in Zoology;

(5) to place the generic name *Holaraea* Milne Edwards & Haime, 1849 (as suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

PARATYLENCHUS ELACHISTUS STEINER, 1949 (NEMATODA): PROPOSED REJECTION OF A NEOTYPE SPECIMEN. Z.N.(S.) 1615

By A. C. Tarjan (*Florida Citrus Experiment Station, Lake Alfred, Florida, U.S.A.*)
and A. Morgan Golden (*U.S. Department of Agriculture, Beltsville, Maryland, U.S.A.*)

The present authors request that the neotype for *Paratylenchus elachistus* Steiner, 1949 (*Proc. Soil Sci. Soc. Fla.* (1942) **4–B**: 72–117), designated by Tarjan 1960 be rejected. This request is based on the discovery of an old slide, in the collection of the Nematological Investigations, U.S. Department of Agriculture, Beltsville, Maryland, containing several original specimens of *P. elachistus.* The species name on the slide is in Steiner's handwriting, and the host data and other data were the same as given in the original publication. Both authors are convinced that these specimens are the syntypes on which the original description of this species was based.

The lectotype female selected from the syntypes is the one which most closely resembles Steiner's original published figure (see Tarjan & Golden, 1964, *Nematologica* **9** : 472). Measurements of this specimen fall within the ranges prescribed by Steiner for this species. The lectotype on Slide T–46t and accompanying paralectotypes are mounted in glycerine and are in the U.S. Department of Agriculture Nematode Collection, Beltsville, Maryland.

The International Commission is therefore requested:

(1) to set aside the specimen of *Paratylenchus elachistus* Steiner, 1949, designated by Tarjan 1960 as neotype of that species;

(2) to place the specific name *elachistus* Steiner, 1949, as published in the binomen *Paratylenchus elachistus*, as defined by the lectotype designated by Tarjan & Golden, 1964, on the Official List of Specific Names in Zoology.

CANCER SETIFERUS LINNAEUS, 1767 (CRUSTACEA, DECAPODA): PROPOSED VALIDATION OF NEOTYPE SELECTION UNDER THE PLENARY POWERS Z.N.(S.) 1617

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

A controversy among carcinologists about the correct names of two of the economically most important shrimps of the world, threatens to start a most regrettable confusion in the nomenclature of these two species. The International Commission on Zoological Nomenclature is now asked to take steps to prevent this confusion.

Until 1936 the name *Penaeus setiferus* (Linnaeus, 1767) was given to a commercially extremely important shrimp, which was found in East American waters between New York and S. Brazil. In 1936 Burkenroad (*Annaes Acad. Brasil. Sci.* **7** (4) : 315–318) discovered that two species actually had been confused under the name *Penaeus setiferus:* a northern species inhabiting the coast of the U.S.A. and Mexico, and a southern species inhabiting the West Indian Islands (including Cuba and Jamaica) and the coast of S. America. Burkenroad retained the name *P. setiferus* for the northern species and gave the new name *P. schmitti* to the southern. He later (Burkenroad, 1939, *Bull. Bingham oceanog. Coll.* **6** (6) : 17) confirmed this by selecting a specimen of the northern species from off Matanzas Inlet, Florida, to be the neotype for *Cancer setiferus* L., 1767.

In my opinion Burkenroad's action is perfectly correct, and most laudable, since the northern form was at that time the best known of the two, being the subject of a highly important fishery in the Gulf of Mexico and therefore it had been mentioned very often (under the name *P. setiferus*) in taxonomic and applied literature; apart from a few mentions in taxonomic literature the southern form had so far received very little attention. When after World War II the fishery for the southern form started to develop, it was always indicated by the name *Penaeus schmitti.*

Gunter (1962, *Gulf Research Rep.* **1** (3) : 107–114, 118–121; 1962, *Proc. Gulf Caribb. Fish. Inst.* **15** : 103–110) contested the correctness of Burkenroad's nomenclature: he believed that the name *P. setiferus* (L. 1767) should be given to the southern species and the name *P. fluviatilis* Say, 1817, to the northern, as in his opinion the type specimen of *Cancer setiferus* L. came from South America or the West Indies. Consequently Gunter thought Burkenroad's neotype selection to be in violation with the provisions of the Code. My own views, which oppose those of Gunter's have been given in a paper (1962, *Gulf Research Rep.* **1** (3) : 115–118), which thanks to Dr. Gunter's kindness was published simultaneously with his first two papers on the subject.

The crucial point in this question is whether or not Burkenroad's neotype designation is valid. In Burkenroad's (1939, *Bull. Bingham oceanogr. Coll.* **6** (6) : 17–25) paper all 6 conditions set by the Code for a neotype selection are fulfilled: (1) Burkenroad (1939) refers to his previous (1936) publication in which he recognized *P. schmitti* as distinct from *P. setiferus* and where he listed the differences between the two; (2) of the designated neotype specimen the catalogue number is given so that recognition of the specimen is ensured; (3) the unsuccessful efforts to locate the type specimen are mentioned; (4) a discussion is given showing that the neotype, as far as Burkenroad was able to make out, belongs to the same species as the holotype; (5) the neotype locality " off Matanzas, Florida " lies within the type locality " America " so that the fifth requirement is also fulfilled; (6) the neotype is the property of the Bingham Oceanographic Collection of Peabody Museum of Natural History, Yale University, a recognized scientific institution.

It is point (5) which is contested by Gunter, who believes to be able to prove that the type of *Cancer setiferus* L., viz., the specimen described and figured by Seba (1761, *Locuplet. Rer. nat. Thes.* **3** : pl. 17 fig. 2) is the southern form. Seba's description and figure give not the least clue as to whether it is the southern or the northern species, both are rather poor and give not enough details to make such a distinction possible. The only locality given by Seba is " America," which does not help either. Gunter expressed the opinion that Seba's specimen more likely belongs to the southern species in view of the fact that Seba lived in Amsterdam, and the Dutch had at that time possessions in the West Indies and South America. I agree here with Gunter, but this is only a possibility and not a certainty, since Seba obtained material from sailors of ships that came to Amsterdam from all over the world; furthermore Seba had many correspondents including at least one in North America. The possibility that his specimen of " Astacus fluviatilis, Americanus " belongs to the northern form is therefore not precluded.

The fact that Linnaeus (1767) gave the locality of his species as " *Habitat in* Indiis " is not very important, as the type locality is the locality where the holotype is found (here Seba's " America ") and not the locality mentioned in any subsequent paper, even if this paper contains the original description. Linnaeus' indication probably means " East and West Indies" . At that time a large portion of the American continent was included in the term " West Indies " (so, in the " Compendium and Description of the West Indies", a translation of a 17th century manuscript by A. Vázquez de Espinosa, (1942, *Smithson. misc. Coll.* **102** : 108), St. Augustine, Florida is mentioned, a locality very close to the neotype locality of *Penaeus setiferus*).

The full published discussion of this case makes it clear that neither group has been able to convince the other of the correctness of its viewpoint, and as the question involves the switching of a name from one economically very important species to another, it seems urgent that an action by the Commission restores the stability and uniformity of the nomenclature of this group.

This action should be, in my opinion, the recognition of Burkenroad's neotype selection for *Cancer setiferus* L. As some zoologists deny the validity of Burkenroad's selection, it is perhaps best, in order to leave no room for doubt, to validate this selection under the plenary powers.

The generic name *Penaeus* Fabricius, 1798 and the family name Penaeidae Rafinesque, 1815, are already placed on the appropriate Official Lists (as no. 498 and no. 35 respectively), so that no action has to be taken regarding them.

The concrete proposals that I now place before the Commission are that they should:

(a) use their plenary powers to validate the selection by Burkenroad (1939, *Bull. Bingham oceanogr. Coll.* **6** (6) : 17) of the ♂ specimen (carapace length 38 mm, total length 165 mm) numbered B.O.C. 237 (taken off Matanzas Inlet, Florida, on 2 April 1934, at 8–10 fathoms, with an ottertrawl, by Mr. M. B. Bishop) to be the neotype of *Cancer setiferus* Linnaeus, 1767;

(b) place the following names on the Official List of Species Group Names in Zoology:

  (i) *setiferus* Linnaeus, 1767 (*Syst. Nat.* (ed. 12) **1** : 1054), as published in the combination *Cancer setiferus*, and as identified through the neotype selection validated under (a) above;

  (ii) *schmitti* Burkenroad, 1936 (*Annaes Acad. Brasil. Sci.*, **7** (4) : 315) as published in the combination *Penaeus schmitti.*

OBJECTIONS TO THE PROPOSED VALIDATION UNDER PLENARY POWERS OF A NEOTYPE FOR *CANCER SETIFERUS* L. 1767 (CRUSTACEA DECAPODA).

By Gordon Gunter (*Gulf Coast Research Laboratory, Ocean Springs, Mississippi, U.S.A.*)

When Linnaeus (1767) described *Cancer setiferus* he referred to a colored figure of Seba (Vol. III, 1761) labeled "*Astacus fluviatilis, Americanus*," which has been accepted as the type ever since. Linnaeus also gave the habitat as "*in Indiis*" and it has always been accepted as the American Indies until quite recently, because of the reference to "*Americanus*."

After all these remarks pertain to a warm water marine shrimp. *Americanus* could apply to polar seas or the Rocky Mountains or the South American Cordilleras. Thus Linnaeus' *in Indiis* is a perfectly natural and reasonable restriction, which is extremely important, and not unimportant as Holthuis would have it. Contentions to the contrary are unreasonable, and they are suspect on the grounds that they are for the purpose of manipulating the Code for ulterior motives to bring about desired ends, as indicated below.

Linnaeus' name *Cancer setiferus* has been accepted traditionally as the original designation for the southern Atlantic white shrimp, and no other interpretation is reasonable. The subsequent publications, following his (1767) notice, are strong evidence that Linnaeus' original intent was recognized and followed. Linnaeus (1790, J. F. Gmelin ed.) listed *Cancer setiferus* from South America and India; Olivier (1811, *Encyclopédie Méthodique. Hist. Nat. Insectes*, **8** : 1–722. Paris) listed it from South America. The following authors listed *Penaeus setiferus* from various localities in South America and the West Indies: H. Milne Edwards (1837, *Hist. Nat. Crustacés, etc.*, **2** : 1–532, atlas, 1–32, pls. 1–42), de Saussure (1858, *Mémoire sur divers crustacés nouveaux du Mexique et des Antilles, etc.* **1** (1). Geneve et Bale), Heller (1865, *Reise der österreichischen Fregatte "Novara" um die Erde, etc.* Zoologischer Theil. Crustaceen. Penaeidae. **2** (3) : 121–123), Bate (1881, *Ann. Mag. Nat. Hist.*, ser. 5, **8** : 169–196), Rathbun (1897, *Ann. Inst. Jamaica*, **1** : 1900; *Proc. Washington Acad. Sci.*, **2** : 133–156).

Say (1817, *Jour. Acad. Nat. Sci. Philadelphia* **1** (6) : 235–353) made the first published reference to a penaeid shrimp from North America when he described the northern species of white shrimp as *Penaeus fluviatilis*. His description was valid and the name has not lapsed. Either H. Milne Edwards (1837) did not know of Say's description or he ignored it and stated that *P. setiferus*, of which he had specimens from the Island of Guadeloupe in the West Indies, was also found on the coast of Florida. The custom of referring to the North American white shrimp as *P. setiferus* seems to date from that time. Nevertheless, the name was applied to the West Indian or South American shrimp nine times up to 1900 and to the North American species only four times. The latter references are: DeKay (1844, *Zoology of New York, etc.*, Pt. VI, Crustacea. P. iv + 70. Albany), Gibbes (1850, *Proc. Am. Assoc. Advan. Sci.* **1** : 168–201), Stimpson (1871, *Ann. Lyceum Nat. Hist. New York*, **10** : 92–136) and Kingsley (1879, *Proc. Acad. Nat. Sci. Philadelphia* **30** : 329–330).

When Burkenroad (1936, *Ann. Acad. Brasil.* **8** : 315–318) showed that the northern and southern species were separate he apparently ignored the literature, or was not fully acquainted with it, and its clear indication that the name of the southern Atlantic white shrimp is *P. setiferus*. Thus he described the southern species as new under the name *Penaeus schmitti*. Under the Rules prevailing then and the present Code that name is only a synonym of *P. setiferus*.

Burkenroad's next action (1939, *Bull. Bingham Oceanogr. Coll.* **6** (6) : 1–62) was to raise questions about the locality designation of Linnaeus as the American West Indies, the first time in over 172 years that it had come up, and attempt to set up a neotype of *P. setiferus* from Matanzas Inlet on the north coast of east Florida. Had this been validated it would have had the effect of transferring the name *P. setiferus* to the northern white shrimp, saving the name *P. schmitt*, and posthumously overslaughing Thomas Say. However, no request for neotype validation was presented to the Commission and only now the Commission is being requested to take action under plenary powers.

I realize that it is quite the vogue to insinuate that the Father of Systematics did not know the east from the west and had very hazy geographic ideas. I do not accept these ideas quickly and always suspect that authors who make these remarks have some axe to grind. That question does not come up here, but instead, we are asked to believe that Linnaeus did not know the difference between the Indies and North America. The fact of the matter is that Linnaeus clearly indicated that *Penaeus setiferus* was a West Indian species, and a long list of following workers found the species there, where Linnaeus said it was to be found, and also in South America. Those details are set forth above.

On the other hand, the ideas of Burkenroad and Holthuis concerning the inadequacy of Linnaeus' locality are tenuous and imaginative and have no substance. Their arguments are based on the simple statement of Seba, " *Americanus*." When taken together the statements of Seba and Linnaeus are rather definite. I (Gunter, 1962a, *Gulf Research Reports* **1** (3) : 106–114, 118–121) stated that the Dutch had holdings in the West Indies and none in North America. Holthuis (1962, *Gulf Res. Reports* **1** (3) : 115–118) countered with the idea that Seba had contacts in Virginia: (In the present petition the remark has been modified, it appears, to the statement that Seba had " at least one in North America " of correspondents). However, Virginia is north of the range of penaeid shrimp except for strays. Furthermore, Virginia and the Carolinas were well enough known localities to be used by Linnaeus and Seba, as witnessed by the host of names *carolinus*, *virginica* and variations to be found on any list of North American fauna and flora. In fact, an examination of the fish names in the latest North American checklist (Jordan, Evermann and Clark, 1930, *Rep. U.S. Comm. Fisheries*, Part II, pp. 1–670) indicates that Linnaeus was more likely to use *virginica* for south Florida species than *indicus*.

Holthuis has also advanced the argument that a good part of Florida was considered to be the Indies in former days. Florida was Spanish territory in those days and Dutch collectors were rare there, if not entirely absent. Additionally, Dr. Thomas O'Grady pointed out to me that Seba made collecting voyages to the West Indies. Thus, the arguments about the indeterminancy of the combined locality statements of Seba and Linnaeus are sort of imaginative grabbing at straws.

Doctor Holthuis' request for a ruling under plenary powers should be rejected because:

(1) Burkenroad was not the " first revisor " in 1939 when he tried to set up a neotype; if he ever was first revisor in this case it was in 1936. He did not remain a first revisor indefinitely and his designation was made in a later publication (1939). Thus his neotype designation does not satisfy Article 75 (a) of the Code.

(2) Burkenroad's " neotype " lies outside of the range of the original species of that name, according to the clear indications of a long line of workers from Linnaeus down to modern times. Thus, his neotype designation does not satisfy the conditions of Article 75 (c)(5) of the Code. The burden of proof lies on Burkenroad and Holthuis to show that Matanzas Inlet, Florida lies within the range of *Cancer setiferus*. No proofs except some doubtful hypotheses have been forthcoming.

(3) Burkenroad's neotype designation does not satisfy the " exceptional circumstances " condition of Article 75 (a) of the Code. No " complex zoological problem, such as the confused or doubtful identities of closely similar species " is involved. The two species of Atlantic American white shrimp are disjunct in distribution and there is no question concerning their distinction. The only " exceptional circumstances " in Burkenroad's neotype designation are the facts that it does not conform to the Articles of the Code in three important particulars, and its validation would have the effect of rescuing his synonym (*Penaeus schmitti*) and making it the proper name for the southern white shrimp.

(4) This is a trivial question concerning only one species, or at the most two. The Commission should not be asked to act on such matters for as a precedent it opens the door to innumerable others concerning the American species of Linnaeus.

(5) Taxonomic workers have many obligations. Among them is the obligation to give just credit to previous workers. Thomas Say first mentioned and described the North American white shrimp and he deserves vindication.

(6) The Commission should not be called upon to rectify the simple mistake of a worker who described an animal previously described, through inattention to the literature, as I have pointed out (Gunter, 1962, *Proc. Gulf and Caribbean Fish. Inst.* 15th Ann. Sess. pp. 103–110), or possibly due to a cavalier attitude, which apparently comes to people who assume a proprietory air after working for a while on restricted groups of animals.

Some General Remarks

The argument between Doctor Holthuis and me derives, I believe, from basic attitudes toward the Code rather than a mere consideration of the proper names of two shrimp species.

Savory (1962, *Naming the Living World*. English Universities Press. xiii + 128 pp. London) has pointed out that biologists may be divided into three groups on the basis of their attitudes towards the International Codes. One group, mostly non-specialists, looks with a jaundiced eye upon the whole procedure and makes little attempt to follow taxonomic rules. A second group follows the rules generally, but not always. A third group believes in rigid application of the rules in all circumstances. Actually there is a fourth group of competent taxonomists who yearn for a new system entirely, and who have proposed a sort of Dewey Decimal System and more recently a uninominal system (Michener, 1963, *Systematic Zoology* **12** (4) : 151–172).

Taxonomists can do nothing about the first group except teach them a little bit from time to time.

As I pointed out before (Gunter, 1963, *Bull. zool. Nomenclature* **20** (3) : 174) Holthuis used the uniform root *penaeus* several years ago for several penaeid shrimp, incorrectly under the rules, and Boschi (1963, *Bol. Instit. Biol. Marina* (3) : 1–39) has followed him, apparently. At present Holthuis has a petition before the International Commission for uniformity in these names, which I supported. But this is after the fact, so to speak, and the papers of Holthuis and Boschi contain erroneous names under the Code, which Holthuis certainly must have recognized before they were printed. Thus, I believe that Doctor Holthuis belongs to the second group of taxonomists, who follow the Code when they wish. The trouble with that attitude is that what the taxonomist does is determined by judgment, rather than by the Code, and the judgments of men differ. I do not sympathize with Holthuis' attitude and I belong to the third group of taxonomists which believes that the Code should be adhered to strictly; it is improving all the time and any step away from it is a much greater move towards chaos than the small inequities we find under it. The Code, like the law, is for everybody and any violation undermines it.

By Robert M. Ingle (*Florida State Board of Conservation Marine Laboratory, St. Petersburg, Florida*)

I have followed the arguments about the proper name of the North American white shrimp (Gunter, 1962, *Gulf Research Reports* **1** (3) : 107–114, 118–121; Holthuis, 1962, *Gulf Research Reports* **1** (3) : 115–118; and Gunter, 1962, *Proc. Gulf and Caribbean Fisheries Institute*, 15th Ann. Session, November, 1962, pp. 103–110) with considerable interest. It is apparent to me that Gunter's contentions are correct and the proper name of the North American white shrimp is *Penaeus fluviatilis*. We intend to use this name in works emanating from our Laboratory.

We work with commercial shrimp on both Atlantic and Gulf coasts of Florida and we are not at all impressed with the overturn of shrimp names as suggested by Holthuis (1962, *Gulf Research Reports* **1** (3) : 115–118) and in his present petition. The commercial shrimpers do not bother with the scientific names of shrimps and they are known by the vernacular names of whites, pinks, and browns. The suggestion of Holthuis in the above petition is not proper or correct with regard to the use of the commercial shrimp names.

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

Though I realize that arguments in a nomenclatural dispute can be continued ad infinitum, I should like to give you my reactions to Dr. Gunter's objection to my proposal concerning *Cancer setiferus* L.

1. As to the type locality of *Cancer setiferus*, this is per definition the locality where the type specimen, i.e. Seba's specimen, was collected. Of this locality we do not know anything in print or otherwise. It has been sufficiently shown that (a) Seba got material from all over the world, (b) the type specimen is no longer extant, and (c) the indications published by Seba are not sufficient to prove whether his specimen belonged to the northern or southern form. Until 1939, when Burkenroad designated a neotype, no restriction of the type locality has ever been published; the mention of localities for the species by later authors, like Linnaeus, Gmelin, H. Milne Edwards, etc. do not constitute type locality restrictions. Therefore I cannot see how Burkenroad's neotype selection can be incorrect under the Code. In my personal opinion, there is no need for an action by the Commission under their plenary powers, and I only asked for it in order to put those minds at rest who could not be convinced that Burkenroad's action is valid. Actually, as I see it, the name *setiferus* can only be used in the sense suggested by Dr. Gunter under a suspension of the Rules by the plenary powers of the Commission. I do not deny the possibility and perhaps even the greater probability that Seba's specimen belongs to the southern form, but its exact provenance (otherwise than that it is American) cannot be proved and therefore Burkenroad's neotype selection from a technical nomenclatural viewpoint is a valid one.

2. As to usage, Dr. Gunter stated that before 1900 the name *setiferus* was applied nine times to the southern form and four times to the northern. The nine times evidently are the records by Linnaeus (1767), Gmelin (1790), Olivier (1811), H. Milne Edwards (1837), de Saussure (1858), Heller (1865), Bate (1881), and M. J. Rathbun (1897, 1900). The first three authors all base their record on Seba's specimen as do also the authors Houttuyn (1769, *Nat. Hist.* **13** : 434), Statius Müller (1775, *Natursyst.* **5** : 1133),

Herbst (1793, *Vers. Naturgesch. Krabben Krebse* **3** : 106), and Olivier (1791, *Encycl. méth. Hist. nat.* **6** : 343), who are not mentioned by Dr. Gunter. Their locality indications are various like America, South America, India, West Indies. Perhaps there are more old handbooks in which Linnaeus is cited, and which thus could be added to Dr. Gunter's list. As far as the other authors cited by Dr. Gunter are concerned, H. Milne Edwards (1837) gave us the only locality for the species " L'embouchure des fleuves de la Floride", which is definitely northern. Dr. Gunter evidently included Milne Edwards in his list because Bate (1881) saw in the collection of the Paris Museum what he supposed to be H. Milne Edwards's specimen of this species labelled Guadeloupe. There are a few more authors, who before 1900 reported the species from S. America or the West Indies: Von Martens (1872, *Arch. Naturgesch.* **38** (1) : 141, 142; 1876, *Preuss. Exped. Ost.-Asien, Zool.* **1** : 38), Sharp (1893, *Proc. Acad. nat. Sci. Phila.*, **1893** : 126), Von Ihering (1897, *Rev. Mis. Paulista* **2** : 156), Doflein (1900, *S. B. Bayer. Akad. Wiss.* **30** : 126). This would make a total of 17 records (18 if H. Milne Edwards is included) 7 of which are based on Seba's animal of which the southern provenance is not certain.

The four records of the northern form published before 1900 referred to by Dr. Gunter are: De Kay (1844), Gibbes (1850), Stimpson (1871), and Kingsley (1879). However, Dr. Gunter forgot to include H. Milne Edwards (1837) and Bate (1881) who reported the species from Florida and De Saussure (1858), who mentioned it from Mexico, though these authors were included among those reporting the southern form; Bate and De Saussure actually dealt with both species. Other authors mentioning the northern form not cited by Dr. Gunter are: Gibbes (1848, *Tuomey's Rep. Geol. S. Carolina*, App. : 294), Kingsley (1878, *Bull. Essex Inst.* **10** : 53; 1899, *Amer. Nat.* **33** : 719), Howard (1883, *South Carolina* : 294), R. Rathbun (1883, *Bull. U.S. Fish Comm.* **2** : 140; 1844, in : G. Brown Goode, *Fisher. Fishery Industry U.S.* **1** : 821), Herrick (1887, *Mem. Denison sci. Ass.* **1** (1) : 46), Evermann (1892, *Bull. U.S. Fish Comm.* **11** : 90), Smith (1892, *Bull. U.S. Fish Comm.* **11** : 273), Collins & Smith (1892, *Bull. U.S. Fish Comm.* **11** : 102), Sharp (1893, *Proc. Acad. nat. Sci. Phila.*, 1893 : 126), Doflein (1900, *S.B. Bayer. Akad. Wiss.* **30** : 126). My count here comes up to 19, while probably more uses can be found in fishery literature, with which I am not too well acquainted. The many late records of the species in the American fishery literature coincide with the increasing importance of the shrimp industry in the United States at the end of the last century and throughout the present (cf. Johnson & Lindner, 1934, *Invest. Rep. U.S. Bur. Fish.* **21**), which industry grew more and more rapidly after 1900 (producing 7·4 million pounds in 1897, its production was up to 96 million pounds in 1934). Therefore it is rather misleading to take only the references from before 1900. According to my bibliography after 1900 the name *setiferus* has been used for far more than 100 times for the northern form and less than 20 times for the southern. As to the name *fluviatilis*, which is proposed by Dr. Gunter to replace the widely used name *setiferus* for the northern species, this has, according to my notes, not been used by any author in the period between its original publication by Say in 1818 and its re-introduction by Dr. Gunter in 1962.

In my opinion there is therefore no good reason for the Commission to undertake any actions for assigning the name *setiferus* to the southern form on the basis of usage; on the contrary, stability would be furthered by keeping to the Rules and thus by accepting Burkenroad's neotype selection.

3. Say in his description of *Penaeus fluviatilis* refers to " Astacus fluviatilis Americanus " of Seba and even borrowed Seba's first adjective for the specific name of his new species. Evidently, Say was not aware that Linnaeus had already given a name to the species, otherwise he might have adopted the name *setiferus* himself. In fact, by selecting Seba's specimen as the lectotype of *Penaeus fluviatilis* Say (a perfectly legal action as no lectotype has so far been selected for Say's species) *Penaeus fluviatilis* Say, 1818, would become an objective junior synonym of *Cancer setiferus* L., 1767. In case the Commission should adopt my proposal concerning the name *Cancer setiferus*, I definitely make this lectotype selection, then at the same time requesting the Commission to place the name *fluviatilis* Say, 1818, on the Official Index of Rejected and

Invalid Specific Names in Zoology. In case Dr. Gunter's ideas are validated it is necessary to select one of Say's own specimens (if still extant) as the lectotype of his species.

4. That Linnaeus's indication " '*in Indiis*' . . . has always been accepted as the American Indies until quite recently " is not quite correct. It actually means the two (i.e. East and West) Indies as can be seen by the fact that Linnaeus himself (1758, *Syst. Nat.* (ed. 10) **1** : 626) under *Cancer vocans* used the term " *in Indiis* " for a species of which he cited references by Catesby from the Bahama Islands and Rumphius from the Moluccas. Gmelin (1790) changed Linnaeus's term " in Indiis " for *Cancer setiferus* to " in America australi & India."

5. A neotype selection has not to be validated by the Commission, so that Burkenroad's action in establishing a neotype without consulting the Commission is not a violation of the Code.

6. The fact that Seba had a contact in Virginia does not necessarily mean that all the material that he obtained from that contact person had to come from Virginia. Say in his original description of *Penaeus fluviatilis* remarked that the species was (rarely) brought to the Philadelphia market, still farther north of the usual range of the species.

7. The information that Seba actually visited the West Indies is entirely new to me. Dr. H. Engel, director of the Zoological Museum at Amsterdam, who is the leading authority on Seba, and has spent a lifetime in collecting information on this interesting Amsterdam apothecary by consulting Dutch and other archives, quite positively informed me that to his knowledge there is not a single indication showing that Seba ever made a voyage to the West Indies. Seba was a burgher of substance, who acquired his collections by buying his specimens (mostly from sailors), by exchange and correspondence.

8. As to Dr. Gunter's points 1 to 6 I may remark the following:

(1) Burkenroad's 1939 paper was indeed a revisionary work. Nowhere in the Code is it stated that a neotype should be set up by a " first revisor," whatever that means in this case.

(2) As pointed out above, the type locality of the species is " America " and it has never been restricted before 1939. Burkenroad's restriction to Matanzas Inlet, Florida, therefore is perfectly legal.

(3) Two species had been confused for more than a century when Burkenroad in 1936 showed them to be distinct. To solve this " complex zoological problem " of " the confused or doubtful identity of closely similar species " Burkenroad's neotype selection was certainly justified.

(4) Since two species of great economic importance are concerned here, the nomenclature of the two forms is not a trivial matter.

(5) Thomas Say confused the two species as badly as did any of the other workers before 1936, unless one accepts Seba's specimen to be of northern origin.

9. Dr. Gunter accuses me that I belong to that group of taxonomists who only follow the Code when it is convenient to them. I can assure him that I have always tried to follow the Code strictly, and that any time that I found that a strict application of the Code would lead to undersirable situations, I have applied for a suspension of the Code. There would not have been any necessity for the, I am afraid rather many, applications that I submitted, if I really ignored the Code whenever it did not suit my purpose. Dr. Gunter further reproaches me that in the question of the uniform root penaeus of generic names of Penaeidae, I wilfully used, in a publication of 1959, this uniform root against the Code, while only " after the fact, so to speak " I submitted a proposal to validate my violation of the Code. Actually, however, the situation is such that in 1956 this question of a uniform root for the Penaeid generic names was already before the Commission and the late Mr. Francis Hemming approached me then for my view point on this matter, expressing himself a general preference for uniformity here. In the belief that a uniform root would have a good chance, and because at that moment there existed a diverse usage of this root, I adopted the uniform " penaeus " root in my paper, basing myself on Article 80 of the Code. I agree that somewhere in my paper I should have explained the situation and can only regret this oversight.

PURPURA, *OCENEBRA*, AND *MURICANTHUS* (GASTROPODA): REQUEST FOR CLARIFICATION OF STATUS. Z.N.(S.) 1621

By A. Myra Keen (*Stanford University, California, U.S.A.*)

Several questions have arisen in my revision of the gastropod superfamily Muricacea for the " Treatise on Invertebrate Paleontology " that seem to require decision by the International Commission on Zoological Nomenclature. Three of these are here grouped as a single petition because the problems involved are somewhat related and are relatively straightforward.

I. *Status of Purpura*

While I was preparing the preliminary draft of this petition, a comment by Drs. J. Chester Bradley and Katherine V. W. Palmer was published (*Bull. zool. Nomencl.* **20** : 251) relative to Z.N.(S.) 1088, on *Ceratostoma*. I have therefore rephrased my statements so as to discuss the requests that they made to the Commission.

The " Purple-shells " of the ancients, so often mentioned by authors, were any of several mollusks from which a colorfast dye could be obtained, mainly a species of the family Muricidae, *Murex trunculus* Linnaeus, 1758, from the eastern Mediterranean, a form not included acceptably in the nominal genus *Purpura* until late in the eighteenth century, and then only fleetingly. Linnaeus did not recognize *Purpura* as a genus but placed the species under *Murex*. In the ensuing half-century, from 1758 to 1799, the name *Purpura* was used in several different senses, the earliest appearances (Martini and Chemnitz, 1777; Martyn, 1784; and Meuschen, 1787) being in works now rejected as non-binominal. Bradley and Palmer conclude that (and in this I agree) the introduction of the name by Bruguière, 1789, was not in such a way as to fix the type-species; the proposal was, at best, of a genus without named species. They would invoke subsequent monotypy under Article 69a (ii) (2) of the Code, the type being fixed by Lamarck, 1799, as *Buccinum persicum* Linnaeus, 1758. This, however, overlooks a very different usage of the generic name by Bruguière himself in 1792, when he proposed in an entirely acceptable manner the nominal species *Purpura tubifer* (*J. Hist. nat.*, Paris, **1** : 28, pl. 2, figs. 3–4). This Eocene fossil was refigured by Montfort in 1810 and made the type-species of the new genus *Typhis*. Hence, the device of subsequent monotypy would not preserve *Purpura* in its accustomed sense, and it would jeopardize a well-known and uncontroversial name, *Typhis*. I conclude, therefore, that action by the Commission, under the plenary powers, is required. Two alternatives are possible:

(a) Fixation of the type-species of *Purpura* Bruguière, 1789, arbitrarily as *Buccinum persicum* Linnaeus, 1758, in accordance with current practice.

(b) Suppression of the name *Purpura* on the ground that its use is and has been equivocal. In support of the latter alternative the following arguments may be advanced:

(i) During the last half of the eighteenth century the name was used in at least five different senses, generically, in what would now be regarded as two

---

separate families. Usage during the nineteenth century was fairly uniform, mostly in the sense that would result from alternative (a) above; this was in Muricidae only if the family was interpreted broadly, in Purpuridae when subdivisions were made. Early in the present century confusion was re-introduced with Dall's revival of the Martyn names, for the *Purpura* of Martyn would fall in Muricidae in the strict sense. The inconsistencies that resulted continue to plague authors; for example, a recently published local guide book by a highly respected zoologist, one that has obviously been given careful preparation, cites *Purpura* twice on one page, representing two very different senses (" *Purpura foliata* " and " *Purpura lapillus* ", page 104 of *Seashore Life of the San Francisco Bay Region*, by Joel Hedgpeth, University of California Press, 1963). Such is the confusion in the literature that this ambiguity can readily occur. Suppression of the name will not, of course, expunge it from published literature, but it would require future authors to clarify their terminology. Subsequent names are available for the taxa now allocated to *Purpura: Haustrum* Perry, 1811[1] (type-species, by subsequent designation by Iredale, 1915, *H. zealandicum* Perry = *Buccinum haustorium* Gmelin, 1791) for the group of *B. persicum*, of which the two type-species are conceded to be congeneric; and *Plicopurpura* Cossmann, 1903 (type-species by original designation, *Purpura columellaris* Lamarck, 1822) for a closely related or taxonomically subordinate tropical American group. Oddly enough, all of the species in the erstwhile *Purpura* Auctt. are Indo-Pacific, South Pacific, or tropical American in distribution, none being Mediterranean. The total number of species involved is small—well under ten, perhaps not more than five. Suppression of *Purpura*, therefore, would not have widespread effects.

(ii) *Purpura* of authors is morphologically very close to *Thais* Röding, 1798 (*ex* Bolten MS) (type-species, by subsequent designation by Iredale, 1915: *T. lena* Röding = *Murex fucus* Gmelin, 1791 = *Nerita nodosa* Linnaeus, 1758). The acceptance, early in the present century, of the *Museum Boltenianum* as an available source of generic names (I.C.Z.N. Opinion 96) and the revival of *Purpura* Martyn by Dall as a genus in Muricidae had as a result the replacement of the family name Purpuridae by Thaisidae Suter, 1913 (or its emended form Thaididae, which is classically more correct), and the latter has been almost universally applied ever since. Now that priority for family-group names is required under the Code, Purpuridae—which has long priority—would have to be reinstated and Thaisidae (or Thaididae) would have to be abandoned, for the two groups cannot be separated taxonomically even at the subfamily level. This would serve no useful purpose and could well increase the confusion.

---

[1] In compliance with Article 23b of the Code, one must point out that two specific names in the genus *Haustrum* Perry, 1811 (*Conchology:* pl. 44) are *nomina oblita: Haustrum pictum*, figure 2, is stated to be from the East Indies. It is unmistakably the West Central American *Purpura planospira* Lamarck, 1822. *Haustrum dentex*, figure 3, stated to be from "Nootka Sound", is likewise a tropical West American form, *P. columellaris* Lamarck, 1822. American malacologists seem not to have noticed these figures, and the names have never been utilized. The Commission is hereby asked to suppress both in the interests of stability.

The course that would result in least disruption of established nomenclature would be alternative (a) above, *provided* that at the same time all family-group names based on *Purpura* were suppressed. I would therefore petition, for the reasons given under (ii) above, that the Commission designate, under the plenary powers, *Buccinum persicum* as the type-species of *Purpura* Bruguière.

II. *Tritonalia* vs. *Ocenebra*

Bradley and Palmer (op. cit., 253) inject into the discussion of *Ceratostoma* the wholly unrelated question of the earliest generic name for the group of species typified by *Murex erinaceus* Linnaeus, 1758, whether it be *Tritonalia* Fleming, 1828, or *Ocenebra* Gray, 1847. They do not accept Winckworth's thesis that Fleming in renaming the homonymous *Triton* as *Tritonalia* automatically renamed its earliest usage in Mollusca. Rather, they argue that Fleming was referring only to his own usage of the name *Triton*. Because Fleming did not cite authorities for genera, one cannot say positively either that he intended to propose a new taxon or that he considered *Triton* Montfort, 1810, could include the species he enumerated. As Montfort's figure of *Triton tritonis* (Linnaeus) is not a clear one, a worker unfamiliar with the large tropical shell it represents could well assimilate to the genus the much smaller forms that Fleming cited. True, under modern standards of classification these two groups represent different families; but standards change. Evidence of the broad interpretation of the *Triton* of that time is supplied us by Herrmannsen, compiler of the " Indices Generum Malacozoorum", who, as late as 1849 (vol. 2 : 605), synonymised both *Triton* Montfort, 1810, and *Tritonalia* Fleming, 1828, with the earlier but preoccupied *Tritonium* Link, 1807.

Aside from all this there is a very practical consideration. For the past thirty years authors have increasingly accepted Winckworth's interpretation, and few modern workers are utilizing *Tritonalia* with *Murex erinaceus* as type-species. To revert to it now and to reject *Ocenebra* Gray as a synonym would provide a good case for those who sneer at systematists for their name-changing. A few workers have gone so far as to use *Tritonalia* to replace *Triton*, thus displacing the well-known *Charonia* Gistel. This action, though logical, could be a cause of confusion.

In the interests of stability and in harmony with most current practice, therefore, the Commission is asked to suppress *Tritonalia* Fleming, 1828, as an equivocal name, because the intention is not clear as to which usage of *Triton* it was intended to replace.

III. Status of *Muricanthus*

In 1833 Swainson (*Zool. Illustr.* (2) 3 : pl. 100) proposed the subgeneric name *Centronotus* for *Murex (C.) eurystomus* Swainson, new species, which he said had been wrongly called *M. saxatilis* Linnaeus by authors. The figured specimen is a muricid gastropod of the group *Hexaplex* Perry, 1811, probably not separable, subgenerically, from the type-species of the genus, *H. foliacea* Perry = *Murex cichoreum* Gmelin, 1791. However, the name *Centronotus* was preoccupied—as Swainson himself soon realized—by *Centronotus* Schneider, 1801, in Pisces.

Swainson in 1840 (*Treatise Malac.* : 296) proposed the generic name *Muricanthus* with two species, *M. radix* [Gmelin, 1791]—for which he cited a figure in his *Zoological Illustrations*, pl. 113—and *M. melanomathos* [Gmelin, 1791]. The first of these two species was designated as type by Herrmannsen in July, 1847 (*Indices Gen. Malacoz.* **2** : 69), and this selection has been accepted by later authors, the name *Muricanthus* being well entrenched in current usage. However, as has been pointed out to me by Emily H. Vokes (*in litt.*), Swainson stated in a footnote that *Muricanthus* was a new name for the preoccupied *Centronotus*, a fact that has generally been overlooked. Under Article 67 (i) of the Code its type-species is not subject to subsequent designation and must become that of *Centronotus*. Authors have generally considered the type of *Centronotus* to have been fixed by monotypy, as *Murex eurystomus* (for example, Clench, 1945, *Johnsonia* **1** (17) : 42). If this is true, then strict application of the Rules would make *Muricanthus* fall as a synonym of *Hexaplex*. If it could be shown that plates 100 and 113 of Swainson's *Zoological Illustrations* appeared simultaneously, the type of *Centronotus* would be fixed by subsequent designation by Gray 1847 (Nov.) (*Proc. zool. Soc. Lond.* : 133), as *Murex radix*, for Swainson used the name *Centronotus* on both plates. Swainson's tabular summary of parts shows that plate 100 appeared in part 22 and plate 113 in part 25, but I have not been able to find any statement as to dates of publication other than Sherborn's in the *Index Animalium*, that plates 96–136 appeared in 1833. Because of the uncertainty as to the type-species of *Centronotus* and because no useful purpose would be served by declaring *Muricanthus* an objective synonym of *Hexaplex*, the Commission is asked to validate *Muricanthus* Swainson, 1840, under suspension of the Rules, with the type-species *Murex radix* Gmelin, 1791, in accordance with accepted usage.

IV. Proposals

Summarizing the several requests the Commission is asked:

(1) to use its plenary powers:
  (a) to set aside all designations of type-species for the nominal genus *Purpura* Bruguière, 1789, and having done so to designate *Buccinum persicum* Linnaeus, 1758, to be the type-species of that genus;
  (b) to set aside all designations of type-species for the nominal genus *Muricanthus* Swainson, 1840, and having done so to designate *Murex radix* Gmelin, 1791, to be the type-species of that genus;
  (c) to suppress the following names for the purposes of the Law of Priority but not for those of the Law of Homonymy:
    (i) the family-group names PURPURACEA Menke, 1828;
    PURPURIDAE Broderip, 1839;
    PURPURINAE Swainson, 1835;
    (ii) the generic name *Tritonalia* Fleming, 1828;

(2) to place the following generic names on the Official List of Generic Names in Zoology:
  (a) *Purpura* Bruguière, 1789 (gender: feminine), type-species, by designation under the plenary powers in (1) (a) above, *Buccinum persicum* Linnaeus, 1758;

(b) *Ocenebra* Gray, 1847 (gender : feminine), type-species, by monotypy, *Murex erinaceus* Linnaeus, 1758;

(c) *Muricanthus* Swainson, 1840 (gender : masculine), type-species, by designation under the plenary powers in (1) (b) above, *Murex radix* Gmelin, 1791;

(d) *Charonia* Gistel, 1848 (gender : feminine), type-species, by original designation, *Murex tritonis* Linnaeus, 1758;

(e) *Thais* Röding, 1798 (gender : feminine), type-species, by designation by Iredale, 1915, *Murex fucus* Gmelin, 1791;

(3) to place the following specific names on the Official List of Specific Names in Zoology:

(a) *persicum* Linnaeus, 1758, as published in the binomen *Buccinum persicum* (type-species of *Purpura* Bruguière, 1789);

(b) *erinaceus* Linnaeus, 1758, as published in the binomen *Murex erinaceus* (type-species of *Ocenebra* Gray, 1847);

(c) *radix* Gmelin, 1791, as published in the binomen *Murex radix* (type-species of *Muricanthus* Swainson, 1840);

(d) *tritonis* Linnaeus, 1758, as published in the binomen *Murex tritonis* (type-species of *Charonia* Gistel, 1848);

(e) *nodosa* Linnaeus, 1758, as published in the binomen *Nerita nodosa* [Note: the oldest available name for the type-species of *Thais* Röding, 1798];

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:

(a) *Tritonalia* Fleming, 1828 (as suppressed under the plenary powers in (1) (c) above);

(b) *Triton* Montfort, 1810 (a junior homonym of *Triton* Linnaeus, 1758);

(c) *Centronotus* Swainson, 1833 (a junior homonym of *Centronotus* Schneider, 1801);

(5) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology:

(a) *pictum* Perry, 1811, as published in the binomen *Haustrum pictum* (a senior synonym of *Purpura planospira* Lamarck, 1822, to be rejected as a *nomen oblitum*);

(b) *dentex* Perry, 1811, as published in the binomen *Haustum dentex* (a senior synonym of *Purpura columellaris* Lamarck, 1822, to be rejected as a *nomen oblitum*);

(6) to place the family-group name THAIDIDAE (correction of THAISIDAE) Suter, 1913 (type-genus *Thais* Röding, 1798) on the Official List of Family-Group Names in Zoology;

(7) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology; as suppressed under the plenary powers in (1) (c) above:

(a) PURPURACEA Menke, 1828;

(b) PURPURIDAE Broderip, 1839;

(c) PURPURINAE Swainson, 1835.

CERTHIA CHRYSOTIS LATHAM, 1801 (AVES): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 1653

Submitted by the Standing Committee on Ornithological Nomenclature of the International Ornithological Congress (Chairman: Finn Salomonsen)

Certhia chrysotis Latham, 1801, *Index Ornith.*, suppl.: 38, New South Wales. The name in question refers to some Australian species within the large and complicated genus *Meliphaga* (Meliphagidae), but has always been regarded as indeterminable; cf. Mathews, 1924, *Birds of Australia* **9** : 454–456, where the history of this name is discussed.

Latham's name blocks two junior homonyms, but they have both received substitute names which have been generally in use for the species in question, viz.:

Meliphaga chrysotis Lewin, 1808, *Birds of New Holland:* pl. 5, for which Swainson in 1837 (*Classification of Birds* **2** : 326) gave the new name *Ptilotis lewinii*, which is now commonly used for the said species.

Philedon chrysotis Lesson & Garnet, 1828 (March), *in* Duperrey, *Voy.* "*Coquille*" (6) : p. 21 (*Zool.* **1** : 645), for which Lesson as early as June 1828 (*Manuel d'Ornith.* **2** : 67) substituted *Myzantha flaviventer* as a new name.

In order to avoid future confusion it is therefore urged that the International Commission on Zoological Nomenclature:

(1) use its plenary powers to suppress the specific name *chrysotis* Latham, 1801, as published in the binomen *Certhia chrysotis*, for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(2) place the above mentioned specific name on the Official Index of Rejected and Invalid Specific Names in Zoology.

G. C. A. Junge, Rijksmuseum van Natuurlijke Historie, Leiden.
A. H. Miller, Museum of Vertebrate Zoology, University of California, Berkeley.
F. Salomonsen (*Chairman*), Universitetets Zoologisk Museum, Copenhagen.
E. Stresemann, Zoologisches Museum der Universität, Berlin.

Appendix

This application was originally submitted in 1958 by the then Standing Committee on Ornithological Nomenclature in an application which also asked suppression of a number of other names. The proposal was read to the session on nomenclature of the XIIth. International Ornithological Congress held in Helsinki in 1958, and no objection was made by any of the assembled ornithologists. For reasons not pertinent to this application, the paper of which it was part was withdrawn. Since the previous Standing Committee approved the application without objection from the Ornithological Congress, the present Standing Committee resubmits it.

CHARLES VAURIE, *The American Museum of Natural History* (*Chairman S.C.O.N.*).

13 AUG 1964

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 21, Part 4 (pp. 241–320, 2 plates) 16th October 1964

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin:*—

(1) Suppression of *Mus canguru* Muller, 1776 *et al.* and *Jaculus giganteus* Erxleben, 1777; validation of *Macropus major* Shaw, 1800 (Mammalia). Z.N.(S.) 1584

(2) Designation of a type-species for *Curimata* Bosc, 1817 (Pisces). Z.N.(S.) 1590

(3) Designation of a neotype for *Belemnites mucronatus* Link, 1807 (Cephalopoda) Z.N.(S.) 1160

(4) Suppression of the specific name *Echinus rosaceus* Linnaeus, 1758, 1764, 1767 and Gmelin, 1788 and of the generic name *Echinanthus* Leske, 1778 (Echinoidea) Z.N.(S.) 1616

(5) Suppression of *Nana* Schumacher, 1817 (Gastropoda). Z.N.(S.) 1622

(6) Validation of *Sphalerosophis* Jan, 1865 (Reptilia). Z.N.(S.) 1627

(7) Emendation to *Astraeus* of the generic name *Asthraeus* Laporte & Gory, 1837 (Insecta, Coleoptera). Z.N.(S.) 1628

(8) Validation of *Rhyncogonus* Sharp, 1885 (Insecta, Coleoptera). Z.N.(S.) 1629

(9) Validation of *Ambalodus* Branson & Mehl, 1933 (Conodont). Z.N.(S.) 1633

(10) Validation of *Cnemidophorus septemvittatus* Cope, 1892 (Reptilia). Z.N.(S.) 1634

(11) Suppression of *Procyon brachyurus* Wiegmann, 1837, and *Procyon obscurus* Wiegmann, 1837 (Mammalia). Z.N.(S.) 1640

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
11 June 1964

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature

OPINION 710

ENHYDRUS LAPORTE, 1834 (INSECTA, COLEOPTERA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers:

(a) the generic name *Enhydrus* MacLeay, 1825, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy;

(b) the work entitled *Coleoptera und Lepidoptera. Ein Systematisches Verzeichniss*, published in 1823 by Georg Dahl, is hereby suppressed for the purposes of zoological nomenclature.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Enhydrus* Laporte, 1834 (gender: masculine), type-species, by monotypy, *Gyrinus sulcatus* Wiedemann, 1821 (Name No. 1600);

(b) *Helochares* Mulsant, 1844 (gender: masculine), type-species, by designation by C. G. Thomson, 1859, *Dytiscus lividus* Forster, 1771 (Name No. 1601).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *sulcatus* Wiedemann, 1821, as published in the binomen *Gyrinus sulcatus* (type-species of *Enhydrus* Laporte, 1834) (Name No. 1991);

(b) *lividus* Forster, 1771, as published in the binomen *Dytiscus lividus* (type-species of *Helochares* Mulsant, 1844) (Name No. 1992).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Enhydrus* Rafinesque, 1815 (an incorrect spelling for *Enhydris* Latreille, [1802]) (Name No. 1703);

(b) *Enhydrus* MacLeay, 1825 (as suppressed under the plenary powers in (1) (a) above) (Name No. 1704);

(c) *Enhydrus* Dahl, 1823 (published in a work suppressed under the plenary powers for nomenclatorial purposes) (Name No. 1705);

(d) *Epinectus* Dejean, 1833 (a nomen nudum) (Name No. 1706);

(e) *Helophilus* Mulsant, 1844 (a junior homonym of *Helophilus* Leach, 1817) (Name No. 1707);

(f) *Helophygas* Motschoulsky, 1853 (a junior objective synonym of *Helochares* Mulsant, 1844) (Name No. 1708);

(g) *Epinectes* Régimbart, 1877 (a junior objective synonym of *Enhydrus* Laporte, 1834) (Name No. 1709);

(h) *Prothydrus* Guignot, 1954 (a junior objective synonym of *Enhydrus* Laporte, 1834) (Name No. 1710).

(5) The family-group name PROTHYDRINAE Guignot, 1954 (type-genus *Prothydrus* Guignot, 1954) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name No. 404.

(6) The following entry is hereby made on the Official Index of Rejected and Invalid Works in Zoological Nomenclature with the Title Number 71:

Dahl (G.) 1823. *Coleoptera und Lepidoptera. Ein Systematisches Verzeichniss.* Wien. (suppressed under the plenary powers for nomenclatorial purposes).

HISTORY OF THE CASE (Z.N.(S.) 398)

The present case was submitted to the office of the Commission in July 1960 by Mr. J. Balfour-Browne and Dr. Per Brinck. The application was sent to the printer on 22 September 1960 and published on 14 April 1961 in *Bull. zool. Nomencl.* **18** : 137–139. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. Georg Ochs. An objection to the rejection of Dahl's " Coleoptera und Lepidoptera " was recieved from Dr. T. J. Spilman.

On December 1, 1961 Voting Paper (61) 38 was issued to Commissioners concerning the proposals of Mr. Balfour-Browne and Dr. Brinck. In the course of voting on the application, Commissioner Holthuis stated that he believed Dahl's work to be an available publication under the Code, and insisted that it could be rejected only by the use of the plenary powers. A notice to this effect was published on 28 May 1962 in *Bull. zool. Nomencl.* **19** : 144 and V.P. (61)38 was cancelled. Public Notice of the possible use of the plenary powers to suppress Dahl's work of 1823 was given in the latter part of the *Bulletin* as well as to the other prescribed serial publications and to seven entomological serials. No objection was received.

DECISION OF THE COMMISSION

On 24 October 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)31 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 138–139 and **19** : 144 (Paragraph 10(1) on page 138 of volume 18 to be corrected to read: " to use its plenary powers to suppress the generic name *Enhydrus* MacLeay, 1825, for the purposes of both the Law of Priority and the Law of Homonymy "). At the close of the prescribed voting period on 24 January 1964 the state of the voting was as follows:

Affirmative votes—twenty-eight (28), received in the following order: China, Hemming, Brinck, Hering, Holthuis, Vokes, Bonnet, Tortonese, Hubbs, Riley, Boschma, Stoll, Lemche, Uchida, Mayr, Simpson, Borchsenius, Miller, do Amaral, Jaczewski, Alvarado, Binder, Forest, Obruchev, Mertens, Kraus, Ride, Evans.

Negative votes—one (1): Sabrosky.

Voting Papers not returned—one (1): Munroe

Commissioner Sabrosky returned the following comment with his negative vote:

" The solutions offered in the application (as amended) are possibly unnecessary and potentially dangerous, and I ask that the case be re-examined.

" I agree with Holthuis that Dahl (*1823*) is an available publication. The objection of my colleague, T. J. Spilman, was on the same basis. He assures me that Dahl's introduction shows that it was intended as a catalogue or check list, as well as a price list (in part).

" This being admitted, it is dangerous to suppress the work unless *all* included new genera have been investigated to see whether suppression would cause any difficulty for them. Suppression of the entire work merely to save *Enhydrus* Castelnau may be poor economy. Let us not create problems that we know not of.

Enhydrus

" There is nothing in the application to suggest that *Enhydrus* is an important name that would merit action under the plenary powers. Guignot (1954) was perfectly justified under the Rules in renaming a primary homonym, and his action should not be upset without real justification. The Coleopterorum Catalogus, Gyrinidae (1910) listed only four species of *Enhydrus* in the world, all Neotropical, and Blackwelder (1944), in cataloguing Neotropical Coleoptera, likewise lists only four species. Does this small number justify plenary action? I doubt it.

" The application contained no information as to whether a type-species has ever been selected for *Enhydrus* Dahl. Or if so, what is it and how does it complicate the picture, or does it? If not, can one be chosen among the many originally included species so that *Enhydrus* Dahl would be a synonym of some older name? It would probably be desirable, because of confusion in the aquatic Coleoptera between Gyrinidae and Hydrophilidae, for the name to disappear completely.

" Incidentally, MacLeay's *Enhydrus* should *not* be suppressed under the plenary powers. If Dahl's paper is accepted as an available publication, the MacLeay's *Enhydrus* is just what MacLeay said it was, merely a later use of *Enhydrus* Dahl (ex Megerle)."

Secretary's Note: During the course of preparation of this Opinion it was discovered that the family-group Name ENHYDRINI Régimbart, 1882, proposed by the applicants for addition to the Official List is a homonym of ENHYDRINAE Gray, 1825, already placed on the Official List by the Ruling given in Direction 53. The latter name is based on the mammal genus *Enhydra* Fleming, 1822. The question of a substitute for ENHYDRINI Régimbart will be dealt with in another application to the Commission.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

Enhydrus Dahl, 1823, *Col. u. Lepid.*: 34
Enhydrus Laporte, 1834, *Étud. Ent.* (2): 110
Enhydrus MacLeay, 1825, *Annul. Jav.* **1** : 35
Enhydrus Rafinesque, 1815, *Analyse Nature:* 77
Epinictes Régimbart, 1877, *Ann. Soc. ent. France* (5) **7** : 105
Epinectus Dejean, 1833, *Cat. Coléopt.* (ed. 2): 48

Helochares Mulsant, 1844, *Palp.*: Errata et Addenda to page 132
Helophilus Mulsant, 1844, *Palp.*: 132
Helophygas Motschoulsky, 1853, *Hydrocan. Russ.:* 11
lividus, Dytiscus, Forster, 1771, *Nov. Spec. Ins.:* 52
PROTHYDRINAE Guignot, 1954, *Bull. Ann. Soc. ent. Belg.* **90** : 45
Prothydrus Guignot, 1954, *Bull. Ann. Soc. ent. Belg.* **90** : 45
sulcatus, Gyrinus, Wiedemann, 1821, *Mag. Ent.* (Germar) **4** : 119

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling:

For *Helochares* Mulsant, 1844: C. G. Thomson, 1859, *Skand. Coleopt.* **1** : 18.

CERTIFICATE

I certify that the votes cast on Voting Paper (63)31 were cast as set out above, that the proposals set out in that Voting Paper have been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 710.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
2 *March* 1964

OPINION 711

CULEX AEGYPTI LINNAEUS, 1762 (INSECTA, DIPTERA): VALIDATED AND INTERPRETED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers:

(a) the specific name *aegypti* Linnaeus, 1762, as published in the binomen *Culex aegypti* is hereby validated;

(b) it is hereby directed that the nominal species *Culex aegypti* Linnaeus, 1762, be interpreted by reference to the neotype specimen described by Mattingly, Stone and Knight, 1962.

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified;

(a) *aegypti* Linnaeus, 1762, as published in the binomen *Culex aegypti*, and as interpreted under the plenary powers in (1)(b) above (Name No. 1993);

(b) *caspius* Pallas, 1771, as published in the binomen *Culex caspius* (Name No. 1994).

(3) The generic name *Stegomyia** Theobald, 1901 (gender: feminine), type-species, by designation by Neveu-Lemaire, 1902, *Culex fasciatus* Fabricius, 1805, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1602.

HISTORY OF THE CASE (Z.N.(S.) 1216)

The present case was first submitted to the office of the Commission in April 1957, though it was not until January 1961 that an agreed application was submitted by Dr. P. F. Mattingly, Dr. Alan Stone and Dr. Kenneth L. Knight. This application was sent to the printer on 31 January 1963 and was published on the 16 July 1962 in *Bull. zool. Nomencl.* **19** : 208–219. Public Notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials.

The application was supported by Prof. D. S. Bertram, Dr. J. R. Busvine, Dr. B. R. Laurence, Dr. M. G. R. Varma, Dr. G. A. H. McClelland, Dr. W. E. Macdonald, Mr. P. K. Rajagopalan, Dr. Elizabeth N. Marks, Dr. J. Haman, Dr. A. J. Haddon and Dr. E. C. C. van Someren.

DECISION OF THE COMMISSION

On 24 October 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)33 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 211–212. At the close of the prescribed voting period on 24 January 1964 the state of the voting was as follows:

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* It has been suggested that those unfamiliar with nomenclatural procedure may form the impression that the above declaration prejudices the use of the name *aegypti* in such combinations as *Aedes aegypti* (Linnaeus) or *Aedes* (*Stegomyia*) *aegypti* (Linnaeus). This is not the case. It remains perfectly proper to employ the name in these combinations or any others that further taxonomic study may render desirable. P. F. Mattingly.

Affirmative votes—twenty-eight (28), received in the following order: China, Hemming, Brinck, Hering, Holthuis, Vokes, Bonnet, Mayr, Tortonese, Hubbs, Riley, Boschma, Stoll, Lemche, Uchida, Simpson, Jaczewski, Borchsenius, Miller, do Amaral, Alvarado, Forest, Binder, Mertens, Kraus, Ride, Sabrosky, Evans.

Negative votes—one (1): Obruchev.

Voting Papers not returned—one (1): Munroe.

The following comments were made by Commissioners in returning their votes:

Mr. Francis Hemming (29.x.63): I welcome the settlement proposed for this important and long-standing case. I feel sure that the best method of securing a uniform interpretation is by the establishment of a neotype, as proposed. I think however that in the formal designation of the neotype the species bearing the name *aegypti* Linnaeus, 1762, should be cited in the original combination *Culex aegypti* (the combination in which on page 211 it is proposed that this specific name should be placed on the Official List) and not in the combination " Aedes aegypti " under which it is subjectively cited in Annexe 1 on page 212. Moreover, the course suggested above would harmonise the description (: 212) with the title given (: 214) for this taxon in the explanation of the figures of the neotype.

Dr. Carl L. Hubbs (18.xi.63): My vote " for " is in principle, but with some reservation. In such situations, where it is probable or certain that the first author did not apply the name in the modern sense, I'd much prefer to have his use suppressed by plenary power and to have the species attributed to a more recent author and date.

Prof. Dr. A. do Amaral (3.i.64): As a medical zoologist I think this is a very happy and timely solution for an immensely confusing case.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists by the Ruling given in the present Opinion:

aegypti, *Culex*, Linnaeus, 1762, *Reise nach Palästina:* 470

caspius, *Culex*, Pallas, 1771, *Reise Prov. Russl.* **1** : 475

Stegomyia Theobald, 1901, *in* Howard, *Mosquitoes*: fig. 1, page 127.

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling:

For *Stegomyia* Theobald, 1901: Neveu-Lemaire, 1902, *Mém. Soc. zool. France* **12** : 212.

The following is the original reference for the designation of a neotype for a species concerned in the present Ruling:

For *Culex aegypti* Linnaeus, 1762: Mattingly, Stone & Knight, 1962, *Bull. zool. Nomencl.* **19** : 212–219, pl. 5, text-figs. 1–5.

CERTIFICATE

I certify that the votes cast on Voting Paper (63)33 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 711.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
3 *March* 1964

COMMENTS ON THE PROPOSED STABILIZATION OF *MACPROPUS* SHAW, 1790. (Z.N. (S.) 1584)

(See volume 20, pages 376–379)

By T. H. Kirkpatrick (*Queensland Department of Primary Industries, Brisbane*) and J. T. Woods (*Queensland Museum, Brisbane*)

The stabilization of the generic name *Macropus* Shaw, 1790 (*The Naturalists' Miscellany*, Pl. 33 and text), because of its particular and long-standing application to the Grey Kangaroo, is desirable, but to achieve this an alternative to the synonymy of its type species, *Macropus giganteus* Shaw, 1790 (*loc. cit.*), with *Mus canguru* Statius Müller, 1776 (*Des Ritters C. von Linné . . . Supplementsband :* 62, Nürnberg) is proposed. This is necessitated by a suggested alternative identification of the holotype of *Mus canguru*.

As Calaby, Mack and Ride (1962, *Mem. Qd. Mus.* **14** : 25–31) have pointed out, the holotype of *Mus canguru* is the 38 pound specimen obtained by Cook's party, in the collection recorded by Hawkesworth (1773, *An account of the voyage . . . in the Southern Hemisphere . . . by . . . Captain Cook* 3). The results of Kirkpatrick (in press, *Qd. J. Agric. Sci.* **20**) on the correlation of stages of dental eruption with weights of large macropodids indicate that a Grey Kangaroo, with a cranium such as the Hunterian specimen described by Owen (1853, *Descriptive Catalogue of the Osteological Series . . . Museum . . . Royal College of Surgeons of England* **1** : 322) and figured by Morrison-Scott and Sawyer (1950, *Bull. Brit. Mus. Nat. Hist.* **1** : plate 5) would normally weigh 72 ± 9 pounds, with an observed range of 72 ± 20 pounds. On this basis, it is suggested that this cranium did not belong to the holotype. On the other hand, if the lower cheek-teeth of the skull of the Grey Wallaroo depicted in Nathaniel Dance's drawing, reproduced by Morrison-Scott and Sawyer (1950, plate 4) are interpreted, as has been done by Kirkpatrick (*loc. cit.*) as P_3 dP_4 M_1 M_2, and not P_4 M_1 M_2 M_3 (by analogy with the designation of the upper cheek-teeth by Calaby *et al.* (*loc. cit.*)), then the animal on this basis would normally have weighed 40 ± 7 pounds. It is therefore considered more probable that the Wallaroo skull drawn by Dance belonged to the holotype of *Mus canguru*, and the Hunterian cranium to the 84 pound animal mentioned in the account of Hawkesworth (*loc. cit.*). It might be pertinent to add that a Grey Wallaroo with cheek-teeth as assigned by Calaby *et al.* (*loc. cit.*) would normally weigh 61 ± 7 pounds.

This interpretation of the stage of dental eruption, indicated in Dance's drawing of the Grey Wallaroo skull, is based on the shape of the premolar and its size relative to the first molariform tooth, the lack of wear on the lower incisors, and the relative depth of the ramus. Unpublished work (R. H. Kirkpatrick) indicates the exposure of cementum on the root of I^3 is not unusual in prepared skulls of young macropodids with fully erupted incisors. Similarly the portrayed development of the supraorbital ridges is not considered anomolous for a young male Grey Wallaroo of weight 38 pounds.

It is conceded that the obvious imperfections in Dance's drawing weaken any detailed argument on many of the characters depicted.

We would therefore submit to the Commission that:

1. With reference to our interpretation of the original usage of the name *Mus canguru* Statius Müller, 1776, for the Grey Wallaroo it would be more desiraable to designate as the neotype a young Grey Wallaroo from the Cooktown area. We nominate the Queensland Museum specimen J.10734, a young male of weight 20 pounds. *Jaculus giganteus* Erxleben, 1777 (*Syst. Règn. Anim.* : 409) is to be maintained as an objective synonym of *Mus canguru*.
2. To conserve the generic name *Macropus* for the Grey Kangaroo, it will be necessary then to designate a Grey Kangaroo as the lectotype of *Macropus giganteus* Shaw, 1790. Among the original syntypic material, the Hunterian specimen figured by Morrison-Scott and Sawyer (*loc. cit.*) is available for this purpose, and for a neotype, since the above specimen has been destroyed, Queens-

land Museum specimen, J.10749, from the Cookstown area, figured by Calaby *et al.* (1962, pls. 5–7) is designated.

3. As the generic distinction between the Grey Kangaroo and Grey Wallaroo is supported by us, the question of homonymy between *Jaculus giganteus* Erxleben, 1777, and *Macropus giganteus* Shaw, 1790, is held not to arise.

We support the request for a ruling, but now ask the Commission to:

(1) place the following specific names on the Official List of Specific Names in Zoology:
  (a) *canguru* Statius Müller, 1776, as published in the binomen *Mus canguru*, as defined by our neotype designated in paragraph 1 above.
  (*b*) *giganteus* Shaw, 1790, as published in the binomen *Macropus giganteus*, as defined by our neotype designated in paragraph 2 above.

(2) place the generic name *Macropus* Shaw, 1790 (gender : masculine), type species, by monotypy, *Macropus giganteus* Shaw, 1790, on the Official List of Generic Names in Zoology.

By Ernst Mayr (*Museum of Comparative Zoology, Harvard College, Cambridge, Mass., U.S.A.*)

I am frankly puzzled about the recommendation 2(b) in this application. On page 379 the Commission is requested to place the name *major* Shaw, 1800, on the Official List, and yet in paragraph 7, on page 377, it states that this same name *major* is an objective synonym of *Mus canguru*. I do feel that this should be clarified before the Commission can vote on this request.

By Henning Lemche (*Universitets Zoologiske Museum, Copenhagen, Denmark*)

It is stated by the applicants that the name *Macropus giganteus* Shaw is universally accepted as a junior synonym of *Mus canguru* Statius Müller—but also that there is no agreement on the applicability of the name *Mus canguru*. How can a synonymisation be made without knowing what one of the names involved stands for?

Also, if I read the application correctly, the much misunderstood name *Mus canguru* Statius Müller—apparently a nomen dubium—is now asked to be validated through a neotype selection so that it can be substituted for the well-known name *Macropus giganteus* Shaw, 1790, type by monotypy of *Macropus* Shaw, 1790. Why is it that the Commission is asked to reintroduce the specific name *canguru* Statius Müller? Is it generally accepted now?

By W. D. L. Ride (*Western Australian Museum, Perth*)

1. (a) Replying to Commissioner Lemche's query *Mus canguru* Statius Müller and *Jaculus giganteus* Erxleben are objective synonyms (the latter being a replacement name for the former), as are *Macropus giganteus* Shaw and *Macropus major* Shaw (for the same reason). *M.giganteus* and *M. canguru* are also objective synonyms through the selection of the holotype of *M. canguru* Statius Müller as the lectotype of *M.giganteus* Shaw (Ride, J. Roy. Soc. W. Aust. 1963, p. 126).
   (b) Our proposal (*Bull. zool. Nomencl.* **20**, pt. 5, p. 376) was based on the belief that the animal species described by Statius Müller as *Mus canguru* is the Grey Kangaroo and, since its junior objective synonym *M. giganteus* Shaw is the type species of *Macropus*, it attempts to achieve stability through selecting an undoubted Grey Kangaroo, collected at the type locality, as its neotype.

2. (a) With regard to the proposal of Kirkpatrick and Woods, Kirkpatrick's work suggests that it is even more likely that the species originally described as *Mus canguru* is a Grey Wallaroo (or Hill Kangaroo). The name *Macropus* (or *Osphranter*) *robustus* Gould, 1841, has been used invariably for this species.
   (b) There are two reasons as to why I cannot agree with their solution to the problem. The first is that it upsets the very stable name *robustus* (see 5 and 6 below); and the second is that whether Kirkpatrick and Woods

support the generic distinction between *Macropus* and *Osphranter* or not, the names *Jaculus giganteus* Erxleben and *Macropus giganteus* Shaw are secondary homonyms through their publication as subjective synonyms of *Macropus giganteus* Zimmerman prior to 1960 (Thomas 1888, p. 15 and other authors) and must be rejected permanently (Art. 59).

3. It would now seem that the Commission has three alternatives if it is to retain *Macropus* for the Grey Kangaroo.
   (a) To proceed in an arbitrary fashion to recognize a specimen of the Grey Kangaroo as the neotype of *Mus canguru* (the original proposal of Calaby, Mack & Ride).
   (b) To use the plenary powers to set aside the designation by Ride of a lectotype for *Macropus giganteus* Shaw in favour of the lectotype and neotypes proposed by Kirkpatrick and Woods, and declare that the citation (by Thomas 1888, p. 15, and other authors) of the names *Jaculus giganteus* Erxleben (or other usages of *gigantaeus*) and *Macropus giganteus* Shaw in synonymy under the generic name *Macropus* does not result in secondary homonymy between them. (This achieves the result desired by Kirkpatrick and Woods).
   (c) To use the plenary powers to set aside *M. canguru* Statius Müller and *J. giganteus* Erxlegen and nominate as the neotype of *Macropus giganteus* Shaw an undoubted specimen of a Grey Kangaroo.
4. Kirkpatrick & Woods and ourselves are agreed that if a Grey Kangaroo is to be used as a neotype, it should be the specimen nominated by Calaby, Mack & Ride (1962, Mem. Qd. Mus. **14** : 25–31).
5. Although the proposals (in 4 above) all result in stability for *Macropus*, they are not identical in their effect upon the species names. The results of their application would be
   (a) The Grey Kangaroo would be *Macropus canguru* Statius Müller; the Grey Wallaroo would be *Osphranter* (or *Macropus*) *robustus* Gould;
   (b) The Grey Kangaroo would be *Macropus giganteus* Shaw; the Grey Wallaroo would be *Osphranter* (or *Macropus*) *canguru* Statius Müller;
   (c) The Grey Kangaroo would be *Macropus giganteus* Shaw; the Grey Wallaroo would be *Osphranter* (or *Macropus*) *robustus* Gould.
6. So that the Commission may decide between these on grounds of usage, I have examined the relevant literature and present an analysis below. Since the Whiptail Wallaby is involved in the case as originally presented (*Bull. zool. Nomencl.* Vol. 20 pp. 376–379) it is included here.

Publications Since 1888		Grey Kangaroo	Whiptail Wallaby	Grey Wallaroo
A.	**Purely Taxonomic Works**			
1	Thomas 1888–1909 Cat. Marsup. in B.M.(N.H.) and papers	*giganteus*	*parryi*	*robustus*
2	Spencer 1896 Horn Expedition	*giganteus*	——	*robustus*
3	Bensley 1902 Trans. Linn. Soc. Lond.	*giganteus*	*parryi*	*robustus*
4	Cabrera 1919 Genera Mammalium	*giganteus*	*parryi*	*robustus*

Publications Since 1888		Grey Kangaroo	Whiptail Wallaby	Grey Wallaroo
5	Simpson 1930 Post Mesozoic Mammalia. Foss. Catalogus.	*giganteus*	*parryi*	*robustus*
6	Finlayson 1931–1964 papers	*giganteus*	*parryi*	*robustus*
7	Glauert 1933 J. roy. Soc. W. Aust.	*giganteus*	———	*robustus*
8	Iredale & Troughton 1934 Checklist Aust. Mammalia	*major*	*elegans**	*robustus*
9	Troughton Post 1937 papers	*major*	*canguru*	*robustus*
10	Raven 1935–1946 papers	*giganteus*	*parryi*	*robustus*
11	Tate 1948 Macropodidae Bull. Amer. M. Nat. Hist.	*canguru*	*parryi*	*robustus*
12	Morrison-Scott & Sawyer 1950	*canguru*	*parryi*	*robustus*
13	Ride 1957–1964 papers	*canguru*	*parryi*	*robustus*
B.	**Regional and Popular Works**			
1	Lydekker 1894 Marsupials: Handbook	*giganteus*	*parryi*	*robustus*
2	Lucas & Le Souef 1909 Animals of Australia	*giganteus*	*parryi*	*robustus*
3	Scott & Lord 1924 Vertebrates of Tasmania	*giganteus*	———	———

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* Prior to 1888 *elegans* was used in the combination *Macropus elegans* for more than one species of wallaby. There are:

M. elegans Lambert 1807, a *nomen dubium* which is dismissed as such by all authors since 1888 except Iredale & Troughton who ascribe it to the Whiptail. Recently Troughton has used it for southern populations of the Whiptail (he uses *canguru* for its northern populations).

M. elegans Cuvier 1817, a junior homonym of *M. elegans* Lambert and a synonym of *Kangurus fasciatus* Peron & Lesueur, 1807, the banded hare-wallaby.

According to Thomas 1888, p. 33, *elegans* has also been used in combination with *Halmaurus* (an objective synonym of *Macropus*) for the Eastern Brush Wallaby by Gray 1841 and Gerrard 1862.

Publications Since 1888	Grey Kangaroo	Whiptail Wallaby	Grey Wallaroo
4 Wood Jones 1924 Mammals of South Australia	*giganteus*	———	*robustus*
5 Le Souef, Burrell & Troughton Wild Animals of Australasia	*giganteus*	*parryi*	*robustus*
6 Troughton 1941 Furred Animals of Australia	*major*	*canguru*	*robustus*
7 Carter, Hill & Tate 1945 Mammals of the Pacific World	*major*	———	———
8 Guiler 1960 Marsupials of Tasmania	*giganteus*	———	———
9 Marlow 1962 Marsupials of Australia	*major*	*parryi*	*robustus*
10 Burton 1962 Syst. Dict. Mammals	*major*	———	———
C. **Student texts, etc.**			
1 Cambridge Nat. Hist. 1902	both *giganteus* and *major*	———	———
2 Grassé et al. Traité de Zool. 1945	*canguru*	———	*robustus*
3 Haltenorth in Kükenthal Handbuch der Zool. 1958	*gigantea*	*canguru*	*robustus*
4 Parker & Haswell, Textbook of Zool. 1962	*canguru*	———	———

7. Conclusions:

(a) Prior to 1934 *giganteus, parryi* and *robustus* were universally and uniformly applied. Since that time, *canguru* has been applied both to the Grey Kangaroo and the Whiptail (and now by Kirkpatrick and Woods to the Grey Wallaroo).

(b) *robustus* is completely unambiguous having been continuously applied to no animal but the Grey Wallaroo from 1888 to the present.

(c) *giganteus* and *major* are unambiguous having been applied to no animal but the Grey Kangaroo. Of these *giganteus* has been most used.

(d) *parryi* and *elegans* are unambiguous in the literature since 1888 having been applied to no other animal but the Whiptail Wallaby. Of these *parryi* has been used by all but one author and prior to 1888 *elegans* has been used in an ambiguous fashion.

8. Accordingly, I now submit a revised application in the name of Calaby and myself* requesting the Commission to:

(1) Use the plenary powers to set aside:

(a) for the purposes of Priority but not Homonymy *M. canguru* Statius Müller 1776 and all usages of *canguru* (and its various spellings *kangaru, kanguro, kanguru, caenguru, cangaru, cangura*) in the combinations *Mus*, *Yerboa*, *Jaculus*, *Zerbua*, *Didelphis*, *Didelphys*, and *Macropus*.

(b) for the purposes of both Priority and Homonymy *Jaculus giganteus* Erxleben 1777 and all usages of *giganteus* in the combinations *Yerboa*, *Jaculus*, *Didelphis*, and *Didelphys* prior to 1790.

(c) and place all the above names on the Official Index of Rejected and Invalid species-group names in Zoology.

(2) Place the generic name *Macropus* Shaw, 1790 (gender : masculine), type-species, by monotypy, *Macropus giganteus* Shaw, 1790 on the Official List of Generic Names in Zoology;

(3) Place the following specific name on the Official List of Specific Names in Zoology:
giganteus Shaw 1790 as published in the binomen *Macropus giganteus* as defined by a neotype, i.e., the specimen nominated as the neotype of *Mus canguru* Statius Müller in Calaby, Mack & Ride (1962, Mem. Qd. Mus. **14** : 25–31, pls. V–VIII).

Macropus major Shaw, 1800

9. (a) Regarding the enquiry from Commissioner Mayr on our request to have *major* preserved for use for the Grey Kangaroo of the Sydney District, a brief explanation was included in our original submission but an editorial reshuffle inadvertently led to its omission. We stated that *Macropus major* Shaw 1800 is in current use for the New South Wales subspecies of the Grey Kangaroo and has been so used for 25 years and we requested the Commission to preserve it for this reason. We should have included a request for the use of the plenary powers here but omitted to do so.

(b) The history of this case is that Iredale & Troughton's 1934 action in making *canguru* and *giganteus* nomina dubia (and subsequently applying them to the Whiptail) led them also to use *major* (actually an objective synonym of *Macropus giganteus* Shaw) for the Grey Kangaroo. To this they applied a type locality of Sydney, New South Wales. This has been followed by most authors: some even using it in a subspecific sense for the Grey Kangaroo of the Sydney District in combination with *canguru* (e.g. Tate 1948, Bull. Amer. Mus. Nat. Hist.) or with *giganteus* (e.g. Haltenorth in Kükenthal Handbuch der Zool. 1958).
We consider it desirable that this usage should be maintained.

10. Accordingly we recommend (as *a separate issue* from that concerning *M. canguru* and *M. giganteus* above) that the Commission:

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* Mr. George Mack died on 24th October, 1963.

(a) use its plenary powers to declare that *M. giganteus* Shaw and *M. major* Shaw are not objective synonyms and may have separate type localities and type specimens.

(b) place on the Official List of Specific Names in Zoology the name *major* Shaw, 1800, as published in the binomen *Macropus major* (type locality Sydney, New South Wales, as restricted by Iredale & Troughton 1934, and supported by Tate 1948).

11. We request that the action set out in 8 and 10 above should replace Section 15 of our former application. It will be noted that mention of the Family-Group Name MACROPODIDAE has been deleted. This will form the subject of a separate application respecting all family-group names in PHALANGEROIDEA.

By E. Le G. Troughton and Donald F. McMichael (*The Australian Museum, Sydney*).

The proposals of Calaby, Mack and Ride are claimed to bring stability to the nomenclature of the eastern Australian Kangaroos. In support of these proposals certain claims are made and certain actions proposed which, in our opinion, are not upheld by the facts of the case, and in some cases are not in conformity with the Articles and Recommendations of the International Code of Zoological Nomenclature. Indeed, one of the contributing factors to the complexity of the case is largely the result of the action of Ride (1963) which unnecessarily links the generic name *Macropus* to the specific name *canguru* Müller, and we propose alternative actions which will yield results more in keeping with the current taxonomic position and which, at the same time, are in conformity with the actual taxa originally described by the early workers.

There are two quite separate matters to be determined. These are:

(A) The type species of the nominal genus *Macropus* Shaw, 1790, and the identity of that species.

(B) The identity of *Mus canguru* Statius Müller, 1776 (Captain Cook's Kangaroo).

(*a*) The type species of the nominal genus *Macropus* Shaw, 1790, and the identity of that species

The genus *Macropus* Shaw, 1790 (which, along with the specific name *M. giganteus* should probably be attributed to Shaw and Nodder, since the two names appear jointly on the title page and there is no evidence in the work that Shaw alone was responsible for both the names and the conditions which make them available) is unquestionably based on only one nominal species, viz. *Macropus giganteus* Shaw, 1790, as Calaby, Mack and Ride claim (1963, p. 377, par. 6). This species is therefore the type species of *Macropus* by monotypy. However, it is clear from the original work that Shaw's species *giganteus* is a composite, which included all macropods known at the time from eastern Australia. Among these were the Great Grey Kangaroo, clearly illustrated in the plate accompanying Shaw's first use of the name, and also all the animals seen by Captain Cook's party. We believe that Ride's action (1963, p. 126) in selecting as lectotype of *Macropus giganteus* Shaw " the holotype of *Mus canguru* Statius Müller " complicated the matter, because it unnecessarily linked the generic name *Macropus* Shaw with the identity of Captain Cook's Kangaroo, and furthermore his action is not in conformity with Recommendation 74A of the International Code, since:

(a) There has, for more than 25 years, been controversy as to the identity of *Mus canguru*, and even though its holotype was undoubtedly one of the syntypes of *M. giganteus* and thus available for selection, it does not now exist and it is not known that it was ever illustrated.

(b) The name *giganteus* Shaw and its replacement name *major* Shaw, 1800, have always been applied to the Great Grey Kangaroo,so that in order to " preserve stability of nomenclature " a syntype which is *undoubtedly* a Great Grey Kangaroo should have been chosen by Ride as lectotype. Such a syntype was available, viz. the specimen figured by Shaw (1790, pl. 33).

An added reason why this should have been chosen as lectotype is the fact that it is the specimen which Shaw was actually describing. This is born out only by the title of the work, " The Naturalist's Miscellany, or Coloured Figures of Natural Objects, *Drawn and Described from Nature* ". (Our italics). This specimen is unquestionably a Great Grey Kangaroo, and must have been drawn from a living specimen obtained at the recently established colony at Port Jackson (Sydney). Numbers of living specimens of the Great Grey Kangaroo were returned to England very soon after settlement as the records prove.

We therefore ask the International Commission:

(a) To set aside Ride's selection of the " holotype of *Mus canguru* S. Müller " as the lectotype of *Macropus giganteus* Shaw.

(b) To designate instead the specimen figured by Shaw (1790, pl. 33) as the lectotype of *Macropus giganteus* Shaw, 1790, for the reasons stated above.

If this is done, the specific name *giganteus* Shaw, 1790, will be available for the Great Grey Kangaroo and *Macropus major* Shaw, 1800, will be an available, junior objective synonym of *M. giganteus* Shaw.

If it is felt, that in the interests of stability, the name *Macropus major* should be retained for the Great Grey Kangaroo (since it has been in use since 1934) then the name *Macropus giganteus* Shaw should be suppressed by the Commission in favour of *M. major* Shaw, its junior objective synonym. In view of the fact that the name *giganteus* is also involved in the synonymy of *Mus canguru*, though in a different combination and with different authorship, the latter course is the one we recommend.

(*b*) The identity of *Mus Canguru* Statius Müller, 1776, Captain Cook's Kangaroo

Calaby, Mack and Ride (1963, p.376, par. 1) claim that *Macropus giganteus* Shaw, 1790, is universally accepted as a junior synonym of *Mus cangaru* Müller. This we emphatically deny, as is quite clear from the fact that the name was specifically excluded from the strict synonymy of Captain Cook's Kangaroo in Iredale and Troughton's Checklist (1934, p. 55) because the description was obviously a composite, and the name was not listed in the synonymy of *Wallabia canguru* (Müller) by Iredale and Troughton (1937, p. 70). The identity of *Mus canguru* Müller (of which there can be no doubt that *Jaculus giganteus* Erxleben and *Didelphys gigantea* Schreber are synonyms, but neither of which preoccupy *Macropus giganteus* Shaw) has been the subject of extensive discussion in literature. The arguments of Iredale and Troughton are contained in their papers on the subject (1925, 1937 and 1962). We submit that these papers clearly establish that the 38lb. animal shot by Cook's party, which is undoubtedly the holotype of *Mus canguru* Müller, was in fact a Whiptail Wallaby, of which a manuscript description was written at the time by Solander and which was published by Iredale and Troughton in 1925. We consider that Calaby, Mack and Ride's contention that the holotype was a Great Grey Kangaroo has been completely refuted by Iredale and Troughton's evidence. In order to stabilise the nomenclature of this group of animals in accordance with the facts of the case as set out by Iredale and Troughton in their papers, we submit the following comments for consideration by the Commission.

We oppose the designation of the Queensland and Museum specimen No. J.10749 as Neotype of *Mus canguru* Müller on the grounds that its selection does not conform with Article 75 (c) of the Code, in particular, with paragraphs 4 and 5. These state that a Neotype is validly designated only when it is published with . . . evidence that the neotype is consistent with what is known of the original type-material, from its description and from other sources . . . evidence that the neotype came as nearly as practicable from the original type-locality.

It is clear from the papers of Iredale and Troughton that there are compelling reasons to believe that a Great Grey Kangaroo is not consistent with what is known of the original type material. In a previous publication Calaby, Mack and Ride (1962, p. 30) stated that they proposed to ask " that the specimen [whose skull was] given by Sir

Joseph Banks to John Hunter and became No. 3703 in the collections of the Royal College of Surgeons " be declared to be the holotype of *Mus canguru* Müller. This was in fact not done in their subsequent application to the International Commission, but it is clear that their selection of Queensland Museum specimen No. J.10749 as proposed neotype is based on the fact that it is a Great Grey Kangaroo of roughly equal age to the Banks/Hunter skull (which is known to have been destroyed). In view of the importance which has been placed on this skull, we wish to present the following evidence which we believe throws so much doubt on its authenticity as to make it worthless in evidence.

(a) The photograph of the skull of a Great Grey Kangaroo (No. 1732 in Owen's Catalogue of the Royal College of Surgeons Ostelogical Series) published by Morrison-Scott and Sawyer (1950, pl. 5) proves it to represent a mismatched cranium and mandible, showing that at least two skulls *of similar size* were available at the time of cataloguing, thus casting doubt on the authenticity of either part. Subsequent numbering of the cranial part (No. 3703) shown in the photograph does not confirm its authenticity since the renumbering took place at the time Flower's R.C.S. Catalogue (1884) was prepared some 30 years later.

(b) No statement as to the actual origin of this Hunterian skull is extant in either Banks' or Hunter's handwriting. This view is reinforced by Banks' statement in a letter to the Comte de Lauraguais in 1771 (Mitchell Library MS, Beaglehole, 1962, pp. 328–329) that " I have put all the Papers relative to y^e^ adventure of it into y^e^ hands of Dr. Hawkersworth [*sic*] who I doubt not will do justice to y^e^ work . . . ". It seems incredible that Banks, aware of Solander's description of the original specimen, should fail either to mention it or tender any relevant parts in his possession, thus leaving Hawkesworth solely dependent upon his Narrative and the Parkinson drawings for the descriptive matter upon which *Mus canguru* S. Müller is indubitably based.

What positive evidence is there regarding the origin of the Hunterian skull (Owen's Catalogue No. 1732). None whatever. The only link between this skull and that which Hunter (in White, 1790) said he was " favoured with " by Sir Joseph Banks, is the footnote in Owen's edition of the Hunter papers (1861, p. 250). This specimen may have been the one referred to by Hunter or it may not. We have only Owen's indication to rely on, without original labels or other verifiable evidence.

(c) Even if it were the skull referred to by Hunter, there is no proof that it came from Cook's voyages. Hunter (in White) simply states in reference to the Kangaroo that " the only parts at first brought home were some skins and skulls ". What he meant by the phrase " at first brought home " is obviously debatable, but it could easily and with good reason be interpreted as meaning *brought to England after the settlement at Port Jackson*. That skins and skulls *were* sent to England soon after settlement is clearly established from the published *Historical Records of New South Wales*, where it is shown that numerous specimens (alive and dead) were sent home prior to 1790. Among these were two specimens shipped to Sir Joseph Banks on the " Golden Grove " in November, 1788 (*Historical Records*, vol. 1, pt. 2., p. 221) Another fourteen kangaroo specimens, as noted in a memo to Mr. Nepean from the Home Department, reached England in the "Golden Grove" by November, 1779, (*Hist. Records*, p. 283) and we know that the French Botanist, Broussonet acknowledged receipt of a kangaroo from Banks as early as July, 1789 (Dawson, 1958, p. 166).

Iredale & Troughton have demonstrated that certain major diagnostic characters of the holotype of *Mus canguru* Müller are in direct contrast with those of the Great Grey Kangaroo, as evidenced in Solander's M.S. field description which can legitimately be used as evidence on the diagnostic characters of the Holotype by virtue of Article 75 (c) par. 4., which admits the use of " other sources " apart from the original description. Characters conforming with the identity of the Holotype as a Whiptail Wallaby, in contrast with those of a Great Grey Kangaroo, as already stressed by Iredale & Troughton, are:

(a) The rhinarium (or muzzle) according to Solander's description (as accepted by Raven *et al.*) was " bare between the nostrils and the skin covered with very black fine wrinkles ", a characteristic of the Whiptail Wallaby. In the Great

Grey, the rostral fur extends down over the muzzle to the philtrum-base so that the rhinarium is closely haired *between* the nostril rims, a character diagnostic of all members of the Great Grey group.

(b) Analysis of Solander's description of the dentition indicates that the 3rd upper incisor was simply bilobate as in the wallaby. Alternatively, the description does not establish the presence of the anterior " double-ridge " on the outer surface of the 3rd incisor, which distinguishes the Great Grey absolutely from all other macropods.

(c) The original comparisons of the " slender made " kangaroo with a greyhound is indicative of the body and tail proportions of a Whiptail Wallaby, rather than those of even a sub-adult Great Grey, while the maximum weight (38 lb.) of the Holotype is within the range of 32–49 lb., recorded for the Whiptail Wallaby.

(d) The evenly cylindrical form of the tail, as shown in the Parkinson sketches (Morrison-Scott & Sawyer) and the Hawkesworth figure (basis of the Müller illustration), conforms to the " whip-like " tail of the wallaby in contrast with the heavily-based and relatively shorter tail of the Great Grey. (See Raven, 1939, Figs. 1–3).

(e) The original descriptions of the general colour as " ashy to mouse-grey " conforms with both northern and southern specimens of the Whiptail Wallaby, rather than the grey-brown of the Great Grey. Absence of the Whiptail facial markings in the Hawkesworth figure has no diagnostic significance since there is also no sign of the blackish haired apical third of the tail characteristic of the Great Grey (see Raven, 1939, fig. 3).

Iredale & Troughton (1962, pp. 180–181) have also detailed reasons why they consider that a Great Grey Kangaroo is not acceptable as Neotype on the grounds that such an animal could not have come " as nearly as practicable from the original type locality ".

Briefly this is that, although the Great Grey has in recent years extended its range as the result of clearing of land for grazing, and thus has been collected south of the Endeavour River, it has not been recorded or taken closer than 22 miles from the River. There is no proof at all that it ever lived within the restricted area near Cook's landing place, bounded by the Endeavour River, where the Holotype was shot by 2nd Lieutenant Gore, on a day's outing from the ship, on July 14th, 1770. (Beaglehole, 1962, pp. 93–94).

Therefore, as an alternative to Calaby, Mack and Ride's proposals to confirm their selection of a Neotype from a locality beyond the immediate vicinity of the mouth of the Endeavour River, we wish to submit the following counter proposals which, in our opinion are more compatible with the International Code and with the true identity of Captain Cook's Kangaroo.

We therefore:

(a) Ask the Commission to set aside Calaby, Mack, and Ride's designation (1962, p. 30 : 1963, p. 378) of a Neotype of *Mus canguru* Müller.

(b) Ask the Commission to accept instead as Neotype of *Mus canguru* Müller a specimen of the Whiptail Wallaby in the Australian Museum, Sydney, registered No. M.4607, which was described by Iredale & Troughton (1937, p. 17) under the name *Wallabia canguru* (Müller, 1776) from within 12 miles of the town of Cookstown, Queensland.

If these proposals are accepted, the valid specific name of the Whiptail Wallaby will be *canguru* Statius Müller, 1776. The generic placement of this species has been the subject of discussion in literature, but for the present purpose it is referable to the genus *Wallabia* Trouessart, 1905.

If our proposals in Section A of these submissions are adopted, then the name *Macropus major* Shaw, 1800, will still be available for the Great Grey Kangaroo, a name which all parties wish to retain.

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COMMENT ON THE PROPOSED REJECTION OF *CURIMATA* WALBAUM, 1792. Z.N.(S.) 1590

(see volume 20, pages 390–394)

By William R. Taylor (*Division of Fishes, U.S. National Museum, Washington, D.C.*)

I wish to call to the attention of the International Commission on Zoological Nomenclature that there are additional data that should be considered in acting on the Case " *Curimata* Walbaum, 1792 (Pisces): Proposition à l'inscription de ce genre à l'index officiel des noms rejetés ". If the decision is made that *Curimata* Walbaum is a species name rather than a genus name and if *Curimatus* Oken is placed on the Official List of Generic Names in Zoology, the name of another large group of fishes may be seriously jeopardized.

Pertinent uses of the names *Curimata* and *Curimatus*, that I have discovered, follow in apparent chronological sequence:

(1) *Curimata* Walbaum, 1792, as " *Salmo* (*Curimata*) *Marggravii* " (already discussed by Géry, *loc. cit.*).

(2) *Curimata* Bosc, 1817 (*Nouveau Dictionnaire D'Histoire Naturelle* nouv. ed., tom. 9, page 9). The date of publication of this volume was March 1817 according to Sherborn (*Index Animalium* ed. 2, pt. 1, page xliv, 1922). Bosc's description follows:

> "CURIMATE, *Curimata*. Sous-genre établi par Cuvier, parmi les Salmones, sous la considération du moindre nombre des rayons branchiaux. Il a pour type le Salmone sans Dents. (B). "

A nominal species is not listed; " le Salmone sans Dents " evidently refers to *Salmo edentulus* Bloch, plate 380 (see Cuvier, *Regne Animal* ed. 1, vol. 2, page 165, 1817). *Salmo edentulus* Bloch is also maintained by Géry (p. 390) to be the type species of *Curimatus* Oken.

(3) *Curimatus* Oken, 1817 (*Isis oder Encyclopädische Zeitung* vol. 1, [section] VIII, [no] 148). The pagination is irregular and not continuous in this portion of volume 1. The name appears in the lower part of the right hand column (Cuvier's System) of the fifth (not numbered) page of number 148 which is the first page of the addition (zu 148). It is not listed in the column titled " Okens System. " The actual date of publication appears to have been subsequent to April or May 1817 (note signed articles in section VIII, number 136, page 1807, dated May 1817 and number 141, pages 1121–1122, dated 20 April 1817), and probably was in August or later since it is likely that VIII signified the section for the eighth month. The name *Curimatus* was not accompanied by description, reference to a nominal species, remarks, nor further bibliographic reference.

(4) *Curimata* Cloquet, 1818 (*Dictionnaire des Sciences Naturelles* tom. 12, page 240). This publication appeared in December 1818 according to M. Henri Cassini (*Opuscles Phytologiques* page 147, 1834). Descriptions and synonymies are given for the three included species: *Curimata edentulus*, *Curimata unimaculatus* (equals *Characinus curimata* Lacepède equals *Salmo unimaculatus* Bloch, plate 381, fig. 3), and " *Curimata Friderici* ".

Please note that the synonym *Characinus curimata* Lacepède (an absolute synonym of *Salmo unimaculatus* Bloch) is the type species of *Curimata* Cloquet, by absolute tautonomy, if *Curimata* Cloquet is a new name.

Curimata Bosc then may have as its type species *Salmo unimaculatus* Bloch since Bosc did not include nominal species in the subgenus.

Salmo unimaculatus is now usually placed in another large genus, *Hemiodus* Müller, 1842 (*Monatsb. Akad. Wiss. Berlin*, page 324) by most workers (see Fowler, *Arquivos de Zoologia* vol. 6, page 273, 1950, for synonymy). Thus *Curimata* Bosc, 1817, and *Hemiodus* Müller, 1842, may compete as the generic name for a large group of fishes and create further instability.

(5) *Curimatus* Humboldt and Valenciennes, 1821 (*In* A. de Humboldt and A. Bonpland, *Recueil d' Observations de Zoologie et d'Anatomie Comparée* vol.2, pp. 165–167, dated 1833). The actual publication date of the complete article, *Recherches sur les Poissons Fluviatiles de L'Amerique Équinoxiale*, pages 145 to 216 of volume 2, was 1821 as noted in Oken (*Isis* vol. 10, p. 218, 1822) and by Sherborn (*Annals and Magazine of Natural History* ser. 7, vol. 3, p. 428, 1899).

Three species are included in their genus *Curimatus*: *Curimatus amazonum* Humboldt, *Curimatus taeniurus* Valenciennes, and *Curimatus edentulus* (equals *Salmo edentulus* Bloch). They appear to be the only ones eligible as the type species of *Curimatus* Oken.

I recommend that the International Commission on Zoological Nomenclature:

(1) Table the case, until adequate study can be made of these large and complex groups of fishes (at least three genera, *Curimata*, *Hemiodus*, and *Prochilodus* as presently known may be involved). If the Commission decides that *Curimata* Walbaum, 1792, is a species name rather than a genus name, in order to maintain stability of the predominantly accepted recent usage, I believe it should:

A Use the Plenary Powers and declare that the type species of *Curimata* Bosc is *Salmo edentulus* Bloch (as implied from Bosc's statement " le Salmone sans Dents ") and

B Place *Curimata* Bosc, instead of *Curimatus* Oken, as requested in item (3) (a) on page 393 (Géry, 1963), on the Official List of Generic Names in Zoology and

C Place *edentulus* Bloch, 1794, as published in the binomen *Salmo edentulus*, type species of the genus *Curimata* Bosc, 1817, on the Official List of Specific Names in Zoology.

OBSERVATIONS AU SUJET DE LA VALIDATION PROPOSÉE PAR R. ALVARADO DU NOM DE GENRE *ORTHOLITHA* HÜBNER 1825 (INSECTA LEPIDOPTERA). Z.N.(S.) 1585

(see volume 20, page 380)

par C. Herbulot (Paris) et D. S. Fletcher (London)

Nous ne sommes pas d'accord sur la proposition de R. Alvarado pour les raisons suivantes:

1. La suppression d'un nom de genre par la Commission internationale de Nomenclature zoologique usant des pleins pouvoirs n'est justifiée que dans des cas exceptionnels, lorsque cette action a pour résultat d'éviter des bouleversements susceptibles de provoquer de graves confusions. La proposition de R. Alvarado ne répond pas à cette condition. En effet:

(a) Le nom de genre *Ortholitha* n'est employé d'une façon courante que depuis une cinquantaine d'années alors qu'auparavant pendant plus de cent ans les noms de genre les plus divers avaient été utilisés pour les espèces du genre en question.

(b) Aucune des nombreuses espèces africaines décrites comme *Ortholitha* ou citées sous ce nom (v. notamment L. B. Prout, 1933, in Seitz, The Macrolepidoptera of the World, **16** : 86–88 et A. J. T. Janse, 1933, The Moths of South Africa, **2** : 65–77) n'est congénérique avec les véritables *Phasiane* paléarctiques (=*Ortholitha*). Inversement il existe au moins une espèce asiatique appartenant au genre en question qui n'a jamais été citée comme *Ortholitha* dans la littérature. L'adoption de la proposition de R. Alvarado n'empêcherait pas qu'il faille aujourd'hui désigner toutes ces espèces par un nouveau nom de genre.

(c) Aucun *Phasiane* (=*Ortholitha*) ne présente d'intérêt du point de vue de la médecine, de la science vétérinaire, de l'agriculture ni d'une manière générale de la biologie appliquée.

2. La proposition de R. Alvarado—qui consiste à supprimer le nom de genre *Ortholitha* Hübner [1821] et à maintenir le nom de genre *Ortholitha* Hübner [1825]—

postule que *Ortholitha* Hübner [1825] soit un genre différent de *Ortholitha* Hübner [1821]. Rien n'est moins sûr. Il apparaît bien au contraire qu'en [1825] Hübner dans son Verzeichniss bekannter Schmettlinge ait entendu, en mentionnant *palumbata* (=*palumbaria*), *coarctata* (=*coarctaria*), *bistrigata* et *coassata* (=*duplicata*) dans le genre *Ortholitha*, les ranger dans le genre *Ortholitha* qu'il avait créé en [1821] dans son Index exoticorum Lepidopterorum pour l'espèce *divisata*. Les cinq espèces ont en effet le même aspect général et chacun sait que la classification hübnérienne était avant tout basée sur l'aspect externe des insectes.

A l'appui de cette opinion nous nous permettrons d'invoquer l'autorité de F. Hemming qui en 1937 dans son ouvrage sur Hübner (Hübner, **2** : 235) cite les deux références à *Ortholitha* de [1821] et de [1825] sous le même rubrique alors qu'il procède tout différemment lorsqu'il est évident que Hübner, en employant à nouveau un nom de genre qu'il avait déjà utilisé, avait purement et simplement perdu de vue la première application qu'il avait faite du nom en question. Tel est le cas pour *Aethria* (l.c. : 147), *Axia* (l.c. : 161) etc.

3. En tout état de cause la proposition de R. Alvarado d'inscrire sur la liste officielle des noms de genre *Ortholitha* Hübner [1825] avec comme espéce type *Phalaena plumbaria* Fabricius est inacceptable.

Il est en effet inexact, comme le prétend R. Alvarado, que *palumbata* Hübner et *palumbaria* Denis et Schiffermüller soient des " misspellings " de *plumbaria* Fabricius. *Palumbata* Hübner [1796–1799] est une " emendation " de *palumbaria* Denis et Schiffermüller 1775 mais ce dernier nom a été publié l'année même où Fabricius publiait son *plumbaria* et Fabricius ignorait alors le travail de Denis et Schiffermüller comme ceux-ci ignoraient le travail de Fabricius. Si *palumbaria* et *plumbaria*, par une coincidence fortuite, ne diffèrent que par une lettre, leur sens est cependant tout à fait différent. Au surplus il n'est nullement certain qu'ils s'appliquent à la même espèce. La question est difficile mais B. J. Lempke en 1949 (The Entomologist, **83** : 3) l'a tranchée par la négative et son argumentation n'a jamais été remise en cause.

Mais même s'il était établi que *palumbata* Hübner et *plumbaria* Fabricius désignent la même espèce l'action de Lhomme choisissant *mucronata* Scopoli 1763 (=*plumbaria* Fabricius 1775) comme type du genre *Ortholitha* ne serait pas valable car il eût fallu que Lhomme précise formellement qu'il considérait *mucronata* Scopoli non seulement comme un synonyme de *plumbaria* Fabricius mais aussi comme un synonyme de *palumbata* Hübner ou de *palumbaria* Denis et Schiffermüller, ce qu'il n'a pas fait. Pour la même raison la désignation (antérieure à celle de Lhomme et que semble avoir ignorée R. Alvarado) faite par Hulst in 1896 (Trans. Amer. ent. Soc., **23** : 292) de *plumbaria* Fabricius comme type du genre *Ortholitha* n'est pas davantage valable.

Il faudrait donc que la Commission, si elle estimait devoir valider *Ortholitha* Hübner [1825], prenne proprio motu la décision de choisir comme espèce type du genre *palumbata* Hübner (=*palumbaria* Denis et Schiffermüller) ou *coarctata* Hübner (=*coarctaria* Denis et Schiffermüller). En effet, les deux autres espèces citées par Hübner comme *Ortholitha* en [1825] ne sont pas des *Ortholitha* au sens que R. Alvarado voudrait donner à ce genre. Mais la Commission peut-elle agir de la sorte sans recourir préalablement à une nouvelle consultation des spécialistes du groupe?

La solution la meilleure et assurément la plus simple est de laisser les choses en l'état.

ON THE HOMONYMY OF THE FAMILY NAME MIRIDAE HAHN, 1833 (INSECTA, HETEROPTERA) AND THE TRIBAL NAME MIRINI ASHMEAD, 1900 (INSECTA, HYMENOPTERA). Z.N.(S.) 1090

By I. M. Kerzhner and V. A. Trjapitzin (*Zoological Institute, Academy of Sciences of the USSR, Leningrad*)

In the year 1962 P. H. Timberlake published (*Ent. News* **73** (3) : 66) the following note:

> " The hymenopterous genus *Mira* was established in 1803, and Ashmead using this genus as the type proposed the tribe name Mirini in the family Encyrtidae in 1900. The name *Mira* is derived from the Latin adjective mirus meaning wonderful; hence the tribal name Mirini is correctly formed and valid if not preoccupied by the hemipterous name Miridae.
>
> " Fabricius proposed the genus *Miris* in 1794, but the derivation of the word is uncertain. The establishment of a group name based on *Miris* was by Hahn in 1833, who called the group Mirides and this was later changed to Mirinae and Miridae. Although the name *Miris* was possibly formed arbitrarily its structure suggests the Latin third declension, and Hahn's name Mirides is evidently in the plural nominative case. The stem of *Miris*, therefore, is mirid and the hemipterous family name should become Mirididae." P. H. Timberlake, Citrus Experimental Station, Riverside, California.

In so far as homonymy of high category names is concerned, the question must be studied and solved by the International Commission on Zoological Nomenclature.

History of the question and phylological considerations

2. The genus *Miris* (Hemiptera-Heteroptera, type-species by subsequent designation by Latrielle, 1810, *Consid. gén. Anim. Crust. Arachn. Ins.* : 433—*Cimex striatus* Linnaeus, 1758) was described by Fabricius (1794, *Ent. syst.* **4** : 215) who attributed the masculine gender to this word. But the etymology of the name was not explained by its founder. The majority of the subsequent authors who studied the etymology of the generic names of Heteroptera (Brullé, 1835, *Hist. nat. Ins.* **9** : 409, Amyot & Serville, 1843, *Hist. nat. Ins. Hémipt.*: 277 and others) could not explain the origin of the word Miris. Only in the work of Kolenati (1845, *Meletemata ent.* **2** : 95) can we find two suppositions: A μυρὶς, ιδος, ἥ (a μυρον), vas aut ampulla unguentaria? verosimillius autem a μύρος, ου, ὁ myrus (piscis) cum dentibus ". But the words μυρὶς and μυρος in the ancient Greek language, apparently, did not exist. (Дворсцкий, 1958, Древнег речуескорусский словарь, II). Both suppositions of Kolenati are analysed below.

3. If we accept that the root of this word is taken from one of the classical languages, four more or less probable suppositions are possible:

(a) The word " Miris " originates from the Latin " mirus, -a, -um " (wonderful). But representatives of this genus-group do not possess any remarkable peculiarities in their structure. At least Fabricius did not stress any.

(b) The word " Miris " originates from the incorrectly transcribed Greek root μῡρι-, μῡριό- (myri-, myrio-), which means " containing tens of thousands " or figuratively " numerous, innumerable ". Such a generic name would be reasonable because of the big number of species initially referred to it or perhaps because of the great abundance of these species in nature.

(c) The word " Miris " is formed from the incorrectly transcribed Greek word μύρον (myron) with the meaning " aroma ". Such a name can be explained by the comparatively weak specific odour inherent in Miridae. This explanation coincides with the first supposition of Kolenati.

(d) The supposition of Kolenati that the word " Miris " takes its origin from the name of a fish is not proved, because the bugs of the family Miridae are terrestrial insects. In the ancient Greek language two names of fishes close in spelling to " Miris " are known: μύραινα (muraena) and μύρινος (the name of an unknown fish in the works of Aristoteles). Mrs. N. N. Zabinkova (Leningrad), specialist on ancient Greek and Latin languages gave us a consultation on the question; she is of the opinion that at least if one of the first three suppositions is true, the grammatically correct name of the family must be " Miridae ".

4. In so far as no one published supposition can be regarded as proved, it is possible to consider the word " Miris " as an arbitrary combination of letters. In this case it must be treated as a Latin word and be declined according to the rules of Latin grammar. Since the names of family categories are formed from the basis of the genitive singular, it is necessary to find the correct form of genitive singular of the word " Miris ". Masculine Latin words with the inflexion -is (plenty of them are of Greek origin) belong to the third declension and in the majority of them the syllable " it " or " id " is added to the word stem (i.e. in our case the genitive singular must be miridis, so the stem of the word must be " mirid- "). There are, however, numerous exceptions to this rule, when no syllables are added to the stem. Therefore, from the point of view of Latin grammar the adoption of the genitive singular of the word " Miris " as " miris " (on the basis of " mir- ") is quite acceptable (see also Grensted, 1947, *Ent. mon. Mag.:* 137–141).

5. It is necessary to note that it was Fabricius (1794, *Ent. syst.* **4** : 215; 1803, *Syst. Rhyng.*: 253) who used in his diagnosis the genitive singular of the word *Miris* as " miris " and formed in the same way the genitive singular from other generic names with the inflexion of " -is " (*Gerris, Cercopis, Membracis, Tingis* etc.). From the word *Miris* are formed the specific names *Myrmus miriformis* (Fallén, 1807) (Hemiptera, Coreidae) and *Gonatocerus mirivorus* (Kurdjumov, 1912) (Hymenoptera, Mymaridae), consequently Fallén and Kurdjumov also accepted the stem of the word *Miris* as " mir- ". Nevertheless there exists also the specific name *Phytocoris miridoides* Lethierry, 1877 (Hemiptera, Miridae) but in so far as Lethierry included in this word the Greek

suffix and inflexion " -oides " it is extremely probable that he regarded the word " Miris " as a word of Greek origin and declined it according to the rules of Greek grammar.

6. Hahn (1833, *Wanzen. Ins.* **1** : 234) proposed a family-group name Mirides, based on the genus *Miris* Fabricius. In spite of the supposition of Timberlake, the word " Mirides " is not the plural form of " Miris ". In this case the syllable " -id " is the Greek suffix with the meaning " similarity " (see also other family names of Hahn—Acanthiides from *Acanthia*, Coreides from *Coreus* etc.). Some subsequent entomologists (Brullé, 1835, *Hist. nat. Ins.* **9** : 405; Blanchard, 1840, *Hist. nat. Ins. Hemipt.*: 135) used the form " Miriens ". As in the name Mirides, so in the name " Miriens " the stem of the word is regarded as " Mir- ". Dohrn (1859, *Cat. Hemipt.*: 73) was the first to use the correct latinized form " Miridae " and Kirkaldy (1899, *Entomologist* **32** : 221) relying on the law of priority, re-established the usage of the family name " Miridae " instead of the more recent Capsidae (from Capsini Burmeister 1835), which was used in the second half of the nineteenth century. In the beginning of the twentieth century the family name " Miridae " became universally adopted.

7. Unlike some other family names formed from generic names of obscure etymology with the inflexion -is and used in two forms (for example Gerridae and Gerrididae, Tingidae and Tingitidae, Nabidae and Nabididae etc.) the name Mirididae has never been used. Moreover, even in those cases where two forms of family-group name derived from generic names of uncertain origin have been used, there has been a tendency to unify these names with the purpose of accepting the more abbreviated form. The International Commission on Zoological Nomenclature has already sanctioned the names Tingidae (from *Tingis*), Pieridae (from *Pieris*) and Pyralidae (from *Pyralis*) and now has before it the proposition to sanction the name Nabidae (from *Nabis*) [Z.N.(S.) 958]. Recently, however, it has sanctioned the use of Aphididae (from *Aphis*) instead of Aphidae [Opinion 677].

8. Summarizing the facts we can draw the conclusion that the family-group name Miridae Hahn (Hemiptera), originating from the generic name *Miris* Fabricius, is universally adopted and current, grammatically acceptable and pertinent to the tendencies of zoological nomenclature.

9. The genus *Mira* (Hymenoptera, Encyrtidae) was described by Schellenberg, (1803, *Gen. Mouch. dipt.*: 68). Its name without any doubt takes origin from the Latin word " mirus, -a, -um ", which means " wonderful " (see Dalla Torre, 1898, *Cat. Hymenopt.* **5** : 237). Ashmead (1900, *Proc. U.S. nat. Mus.* **22** : 327) founded in the family Encyrtidae the tribe Mirini. This tribe name is formed correctly from the root " Mir- " (from the genitive singular " Mirae " the inflexion " -ae " is taken away.

Practical Considerations

10. Miridae is the largest family of the Hemiptera-Heteroptera, incorporating about 800 genera and several thousand species. The representatives of this family are of world distribution and abundant in almost all biocoenoses. There are more than a hundred economically important species in the family, including

plenty of dangerous agricultural pests from different countries. The majority of described and injurious species belong not only to the family Miridae but within it—to the tribe Mirini. The family name Miridae is largely used in textbooks, summarizing and faunistic papers and in applied entomology.

11. As to the tribe Mirini Ashmead (Hymenoptera, Encyrtidae), its volume and taxonomic value are now not fully clear, since the system of the family Encyrtidae is insufficiently worked out. Some authors treat it very widely and incorporate into it more than half of the genera and species of Encyrtidae. Now, however, the tribe is reduced by some specialists to a few, probably heterogenous, genera. As a tribal name the term Mirini is used exclusively in papers dealing with taxonomy of Encyrtidae.

12. Thus there is no need to change the name Miridae (Mirinae, Mirini) Hahn (Hemiptera). Such a change of this name to Mirididae or restoration of the later name Capsidae Burmeister, which has not been used for many years, could be a cause of much confusion in the vast scientific and applied literature and is therefore extremely undesirable. The tribal name Mirini Ashmead (Hymenoptera) is grammatically correct, but its general importance is considerably less than the family name Miridae Hahn. Since the tribal name Mirini Ashmead is the junior homonym and has no objective or subjective synonyms, it must be replaced. It is possible, probably, to form from the word *Mira*, a grammatically incorrect name which would not be homonymous with Miridae, for example—Miraini. However, such a drastic breaking of grammatical rules is undesirable, since the name Mirini Ashmead (Hymenoptera) never was of great importance and there is no especial need to follow the succession principle in this case.

13. It seems more correct to propose a new name for the tribe Mirini Ashmead. Since *Mira* Schellenberg is an aberrant genus and has to some extent an isolated position in the tribe, it is better to follow the principle of Article 40 of the International Code of Zoological Nomenclature of 1961 and to form the new name from one of the objective synonyms of *Mira* Schellenberg, 1803. There are three synonyms of *Mira*: *Dicelloceras* Menzel, 1855, *Euryscapus* Foerster, 1856 and *Lonchocerus* Dahlbom, 1857. It is better to use the first of these names, since junior honomyns of the other two exist in the order Coleoptera. In consequence the tribe should be named Dicelloceratini nom. nov.

14. In accordance with the above, the International Commission on Zoological Nomenclature is asked:

(1) to place the following family-group names on the Official List of Family-Group Names in Zoology:
  (a) MIRIDAE (correction of MIRIDES) Hahn, 1833 (type-genus *Miris* Fabricius, 1794);
  (b) DICELLOCERATINI Kerzhner & Trjapitzin, 1964 (type-genus *Dicelloceras* Menzel, 1855, a junior objective synonym of *Mira* Schellenberg, 1803);

(2) to place the following generic names on the Official List of Generic Names in Zoology:

   - (a) *Miris* Fabricius, 1794 (gender: masculine), type-species by designation by Latreille, 1810, *Cimex striatus* Linnaeus, 1758;
   - (b) *Mira* Schellenberg, 1803 (gender : feminine), type-species, by monotypy, *Mira macrocera* Schellenberg, 1803;
- (3) to place the following specific names on the Official List of Specific Names in Zoology:
   - (a) *striatus* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 449), as published in the binomen *Cimex striatus* (type-species of *Miris* Fabricius, 1794);
   - (b) *macrocera* Schellenberg, 1803, as published in the binomen *Mira macrocera* (type-species of *Mira* Schellenberg, 1803);
- (4) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:
   - (a) MIRIDES Hahn, 1833 (type-genus *Miris* Fabricius, 1794) (an incorrect original spelling for MIRIDAE);
   - (b) MIRIDIDAE Timberlake, 1962 (type-genus *Miris* Fabricius, 1794) (an incorrect spelling for MIRIDAE Hahn, 1833);
   - (c) MIRINI Ashmead, 1900 (type-genus *Mira* Schellenberg, 1803) (a junior homonym of MIRIDAE Hahn, 1833).

COMMENT ON THE PROPOSED REPLACEMENT OF MIRINI ASHMEAD, 1900

By G. J. Kerrich (*Commonwealth Institute of Entomology, London*)

As a hymenopterist I have been asked by the Secretary to comment on this case. On the question of whether it is inherently desirable to revert to the family name " Capsidae ", which was in general use when I was a student, I ought perhaps not to give an opinion: we all dislike changes of name except in cases in which we are very familiar with the need for them.

On the question of whether the heteropterous or hymenopterous tribe should be distinguished by being called " Miridini ", I think Grensted would have agreed with Timberlake that " Miridini " should be derived from *Miris* not from *Mira*. But I am opposed to making a distinction between " Mirini " and " Miridini ", because specialists would become forgetful, and general entomologists and bibliographers get confused.

As to whether, if necessary, the heteropterists or hymenopterists should give way, I think the hymenopterists should do so. For the former it is a case of a family name, for the latter of only a tribal name. It is true that Mirini Ashmead is a very important tribe, comprising as it does a large majority of the genera of Encyrtidae; but it is an assemblage of genera of very varied parasitic habit, and therefore of biological significance in little more than the negative sense of contrasting with the Ectromini Ashmead, which are constant in being parasites of mealybugs.

In any case the names of these two Encyrtid tribes need rethinking, because it has recently been shown that *Ectroma* Westwood has been misidentified, and is not an " Ectromine " but a " Mirine " genus. For Mirini Ashmead there are two early names available, Tetracnemini Howard, 1892 and Bothriothoracini Howard, 1895. Tetracnemini is objectionable because for a generation the name *Tetracnemus* was used incorrectly for an " Ectromine " genus of economic importance. I have no objection to Bothriothoracini. For Ectromini Ashmead I prefer Anagyrini Hoffer, 1954, based on the large and economically important genus *Anagyrus*. A group name having two years' priority to this is known to me, but the genus on which it is based is far less important than *Anagyrus*, and its association with the Ectromini Ashmead has not yet been published.

My colleague R. D. Eady is in agreement with these views.

BELEMNITES MUCRONATUS LINK, 1807 (CEPHALOPODA, BELEMNITIDA): PROPOSED DESIGNATION OF A NEOTYPE UNDER THE PLENARY POWERS[1] Z.N.(S.) 1160

By J. A. Jeletzky

(*Geological Survey of Canada, Ottawa, Canada*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to set aside all specimens contained in the type lot of *Belemnites mucronatus* Link, 1807, should these still be extant, as the cotypes and source of interpretation of that nominal species. The Commission is further asked to designate another specimen as the type of the said nominal species, which would be in harmony with its well established and now universally adopted interpretation. This action is necessary to avoid serious confusion and disturbance in the current taxonomic practice both on the specific and generic level coupled with the even more serious and confusing changes in the zonal nomenclature of the late Upper Cretaceous rocks of northern Eurasia currently based on this and allied *Belemnitella*-like forms. As will be shown below, the action proposed in this application is preferable to an attempt to select a neotype of *Belemnites mucronatus* Link, 1807, that would be valid under the ordinary Rules and at the same time in harmony with the current usage of this nominal species.

It is hoped that it will be possible for the Commission to rule early on the present application. The decision is urgently needed as the strict application of the normal Rules was requested recently by the discoverer (Wind, 1955, pp. 663–664) of the nomenclatorial invalidity of the currently accepted taxonomic usage. Other palaeontologists (Birkelund & Rasmussen, 1956) subsequently investigated the matter in detail and came to the same conclusion; they have, however, quite reasonably deferred any decision on the subject pending the outcome of the present appeal to the plenary powers of the Commission. The decision is also urgently required in connection with the expected completion of the relevant part of the " Treatise on Invertebrate Palaeontology."

The details relating to this case are set out in the following paragraphs.

1. Wind (1955, pp. 663–664) has recently reinvestigated the drawings of the specimen of *Belemnitella mucronata* (Link, 1807 sensu Schlotheim, 1813) given by Breynius (1732, *Tabula Belemnitarum*, fig. 1a, 2b), which has been unanimously considered to be the type specimen of this nominal species ever since the publication of Schlotheim's (1813, p. 111) work. He concludes that the figures concerned show morphological features peculiar to the representatives of the genus *Belemnella* Nowak, 1913. These features preclude their now generally accepted identification with *Belemnitella mucronata* of d'Orbigny (1840–42), Arkhangelsky (1912), Nowak (1913) and subsequent authors both on specific and generic level.

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[1] Published by Permission of the Deputy Minister, Department of Mines and Technical Surveys, Ottawa, Canada.

At the same time, as pointed out by Wind (1955), these drawings indicate that the relevant specimen of *Belemnitella mucronata* (Link, 1807 sensu Schlotheim, 1813) was at least congeneric with the legitimate type specimen of *Belemnites lanceolatus* Schlotheim, 1813 (Breynius, 1732, *Tab. Belemnitarum*, fig. 7a). *Belemnites lanceolatus* Schlotheim, 1813 is, however, the type-species of the genus *Belemnella* Nowak, 1913. The genus *Belemnella* thus becomes a subjective junior synonym of the genus *Belemnitella* d'Orbigny, 1840. As further pointed out by Wind (1955), the above results leave *Belemnitella mucronata* of Arkhangelsky (1912), Nowak (1913) and all subsequent authors (including the writer) without a nomenclatorially valid generic name. Under normal nomenclatorial procedure a new generic name would have to be introduced for *Belemnitella mucronata* of these workers and for its allies. They are now generally grouped under *Belemnitella* d'Orbigny, as amended by Nowak (1913) and Jeletzky (1941), and amply deserve a generic name (see Jeletzky, 1941, 1951b, 1955, and in the following paragraphs).

2. According to Birkelund & Rasmussen (1956), the specific name *Belemnites mucronatus* was first published by Link (1807). Link's indication was, however, insufficient to identify this species with any degree of precision, and he gave neither a figure of his species nor any reference to a previously published figure of the same.

Birkelund & Rasmussen (1956) conclude further that Schlotheim (1813, p. 111) was the first revising author of this species; he indicated the figures of Breynius (1732, *Tab. Belemnitarum*, Fig. 1a, 2b) and those of Faujas (1798) as examples of *Belemnites mucronatus*, thus making them its cotypes. No formal selection of the lectotype from among these specimens is known to the writer. Subsequent workers have, however, invariably considered the aforementioned figures of Breynius (1732) as the type specimen of *Belemnites mucronatus*, while invariably considering Schlotheim (1813) to be its author. This latter opinion was, however, rejected by Birkelund & Rasmussen (1956).[1]

3. The generic name *Belemnitella* was first published by d'Orbigny (1840, p. 59) in 1840; he did not designate a type species for his genus and assigned three nominal species *Belemnitella mucronata*, *Belemnitella Scaniae* (= *Belemnites mammillatus* Nilsson, 1817), and *Belemnitella quadrata* to it. *Belemnites mucronatus* was, however, formally selected as the type-species of *Belemnitella* by

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[1] Mr. L. Bairstow, British Museum (Natural History) considers, however (written communication of May 5, 1957), that there is no conclusive evidence that *Belemnites mucronatus* of Schlotheim (1813) was more than a (possibly non-synonymous) junior homonym of *Belemnites mucronatus* of Link (1807), as Schlotheim did not indicate his knowledge of Link's work anywhere in his publication. He disputes, therefore, Birkelund's & Rasmussen's (1956) conclusion that Schlotheim (1813) was the first revisor of the species and that Breynius's (1732) specimens are legitimate cotypes of Link's (1807) *Belemnites mucronatus*.

Although there is no irrefutable evidence either for or against this assumption, the writer believes with Birkelund & Rasmussen (1956) that Schlotheim (1813) must have known Link's (1807) works, has knowingly used Link's specific name, and has revised his ill-defined species. He feels strongly, furthermore, that no useful purpose would be served by trying to achieve a solution of this complex and obscure problem that would be at the same time valid under the ordinary Rules and in harmony with modern usage. It is vastly preferable to settle it automatically once and for ever by the use of the plenary powers of ICZN as asked for in this appeal.

Herrmannsen (1846, p. 105) and was always so regarded by subsequent workers (e.g. Naef, 1922, p. 255).

All *Belemnitella*-like forms figured by d'Orbigny (1840, pl. 7, fig. 1–8) as examples of *Belemnitella mucronata* were, however, subsequently found to be quite distinct from its generally recognized type specimen designated by Schlotheim (1813), which was cited by d'Orbigny as one of the examples of *Belemnitella mucronata*. The subsequent workers to be discussed in the following paragraphs have, unfortunately but not unnaturally, tended to interpret the nominal species *Belemnitella mucronata* and the genus *Belemnitella* by the examples figured by d'Orbigny (1840). This attitude was greatly facilitated by the fact that d'Orbigny's (1840) work was much better known and more easily accessible than those of Breynius (1732) and Schlotheim (1813).

An extreme but illuminating case is that of Lange (1921, pp. 25–26). This worker, being unable to procure a copy of Breynius's (1732) work and being struck by the poor quality of the Faujas (1798) figure, actually proposed to consider d'Orbigny (1840) as the author of the nominal species *Belemnitella mucronata*. Similarly, Naidin (1952) has refused to credit Schlotheim (1813, 1820) with the authorship of the species *Belemnites lanceolatus* and proposed to consider Sinzov (1872) as its author.

The above discussed action of d'Orbigny (1840) appears, therefore, to be the original source of the nomenclatorial and taxonomic confusion discussed in the following paragraphs.

4. The generic name *Belemnella* was published by Nowak (1913, pp. 393, 403) as a subgenus of the genus *Belemnitella* d'Orbigny, 1840 emend. Schluter, 1876. Although not indicated as such by Nowak (1913), *Belemnites lanceolatus* Schloth., 1813 was formally designated as the type-species of the subgenus *Belemnella* by Bulow-Trummer (1920, p. 195).

Nowak (1913, pp. 393, 395) simultaneously restricted the subgeneric name *Belemnitella* s. str. to the Upper Campanian and Maestrichtian *Belemnitella*-like forms. These forms are essentially similar to those figured by d'Orbigny but rather distinct morphologically from the unanimously recognized type specimen of *Belemnites mucronatus* (Link, 1807 sensu Schlotheim, 1813). Nowak (1913) has, like so many other authors, completely overlooked the above differences. Also some other *Belemnitella*-like forms (*Belemnitella praecursor* Stolley, *Belemnitella americana* (Morton), *Belemnitella mirabilis* Arkhangelsky) were placed in the subgenus *Belemnitella* s. str. by Nowak (1913). All these forms are congeneric with the specimens of *Belemnitella mucronata* figured by d'Orbigny (1840) but not with *Belemnites mucronatus* (Link, 1807 sensu Schlotheim 1813) as interpreted by its generally recognized type specimen.

Bülow-Trummer (1920, p. 188, 195) recognized the validity of the subgeneric names of Nowak (1913) in the Dibranchiata part of the Fossilum Catalogus.

Jeletzky (1941, pp. 28–30, fig. 1–4) has demonstrated that the groups of *Belemnitella*-like forms designated respectively as subgenera *Belemnella* and *Belemnitella* s. str. by Nowak (1913) and already previously referred to as the groups of *Belemnitella mucronata* and *Belemnitella lanceolata* by Arkhangelsky (1912, p. 622–623) differ sharply from one another in several important morphological features. Taken together with the only morphological distinction of these subgenera listed by Nowak (1913, pp. 391–392), these morphological features were found to be ample for the recognition of these species groups as independent genera of the family Belemnitellidae Pavlow, 1914 by the majority of specialists concerned. Like his predecessors Jeletzky (1941) failed to notice that the morphological features of all forms placed in the genus *Belemnitella* s. str. are in contradiction with those of the generally recognized type-specimen of its type-species (see above). Jeletzky also failed to recognize this distinction in his later publications on the subject. He (Jeletzky, 1949, p. 262) recognized, however, the complete morphological correspondence between the type specimen of the legitimate type-species of the genus *Belemnella* Nowak, 1913 and the *Belemnitella*-like forms placed into this species (*Belemnites lanceolatus*) by modern authors recognizing its independence.

5. After the revision of the genera *Belemnitella* s. str.and *Belemnella* by Jeletzky (1941, 1946, 1948a, 1949, 1951b), these names in the sense of Nowak and Jeletzky have been accepted and used stratigraphically by the majority of English, west-European, German-Scandinavian, North American and Russian specialists concerned (e.g. Wright & Wright, 1951, pp. 3, 10; Voigt, 1951, 1954; Schmid, 1951, 1953, 1955a, b; Seitz, 1952; Troelsen, 1955; Wicher, 1953; Bettenstaedt & Wicher, 1955; Reyment, 1956, pp. 41–42; Birkelund, 1957; A. Müller, 1951, pp. 28–29, pl. IV; 1952, p. 375, pl. I, fig. 1; Lowenstam & Epstein, 1954, pp. 245; Lowenstam, 1954, p. 299; Hiltermann, 1952, pp. 47, 60–61, 63; Hiltermann & Koch, 1950, pp. 597, 1955, pp. 358–363; Naidin, 1951, 1952, 1954, 1959). These genera were, furthermore, accepted in the same sense in the most important modern Treatise of Palaeontology edited by Piveteau (Roger, 1952, pp. 721–722, fig. 52–53) and in Müller's (1960, pp. 267–8, text figs. 388–93) Text book of Palaeontology. Among recent workers only Vassilenko and Rasmyslova (1950), Nikitin (1958) and Kongiel (1962) have questioned the taxonomic validity of the genus *Belemnella*. Until the appearance of the paper by Wind (1955) none of the above workers had any idea about the nomenclatorial invalidity of this usage.

6. The specific names *Belemnites mucronatus* and *Belemnitella mucronata* were mostly applied loosely to several *Belemnitella*-like forms of Northern Eurasia and North America after the appearance of Schlotheim's (1813, 1820) works and until the first quarter of the 20th century. This usage became especially widespread subsequently to the appearance of d'Orbigny's (1840) work. During this period *Belemnites lanceolatus* Schlotheim, 1813 was mostly placed in the synonymy of *Belemnites mucronatus* sens. lat. (see Jeletzky, 1949, pp. 262–266).

7. Arkhangelsky (1912, pp. 600–606, pl. IX, fig. 3, 9, 23, 26; pl. X, fig. 10) was the first worker to restrict the name *Belemnitella mucronata* to one of the several *Belemnitella*-like forms previously lumped under that name. This worker expressly restricted this specific name to the *Belemnitella*-like form occurring in the latest Lower Campanian and Upper Campanian (= Mucronatenschichten; see Jeletzky 1948b, pp. 587, 592) rocks of eastern Russia and other regions of northern Eurasia. He, furthermore, expressly assigned the *Belemnitella*-like forms occurring in the overlying Lower Maestrichtian and Upper Maestrichtian rocks of eastern Russia respectively to *Belemnitella*

lanceolata (Schlotheim, 1813) and *Belemnitella americana* (Morton, 1830). The *Belemnitella*-like forms of the underlying older Lower Campanian and Santonian rocks of eastern Russia have been assigned to *Belemnitella praecursor* Stolley and *Belemnitella mirabilis* Arkhangelsky.

It must be stressed that Arkhangelsky (1912, pp. 600, 609) expressly stated that his Upper to late Lower Campanian *Belemnitella mucronata* is conspecific with Schlotheim's (1813) *Belemnites mucronatus.* Nor did he use any subspecific names for the Russian *Belemnitella*-like forms, to which he restricted Schlotheim's name. The description and figures given by Arkhangelsky (1912) are satisfactory and leave no doubt that he completely overlooked the morphological distinctions between his form and the generally recognized type specimen of *Belemnites mucronatus* Link, 1807 sensu Schlotheim, 1813. Arkhangelsky's (1912) *Belemnitella mucronata* is obviously different from this latter; it belongs together with the specimens of *Belemnitella mucronata* figured by d'Orbigny (1840) to the genus *Belemnitella* sens. str. in the sense of Nowak (1913) and Jeletzky (1941, 1948a, 1949, 1951b, 1955).

With the sole exception of Sinzov (1915), who has questioned the validity of Arkhangelsky's (1912) definition of *Belemnitella mucronata* and that of its zone, all subsequent Russian workers have accepted *Belemnitella mucronata* and other *Belemnitella*-like forms (including *Belemnitella lanceolata* Schlotheim, 1813) in the previously discussed sense of Arkhangelsky (1912). Arkhangelsky's (1912) zonal scheme for the Russian Upper Cretaceous rocks based on these *Belemnitella*-like forms was also found to be fully valid and was accepted by all subsequent Russian authors. The subsequent introduction of additional *Belemnitella langei* (see Jeletzky, 1948b, 1951b, pp. 93–98) and *Belemnella lanceolata* mut. *sumensis* (see Jeletzky, 1949, pp. 268–270) zones is quite irrelevant in this connection, as these *Belemnitella*-like forms were unknown to Arkhangelsky (1912). It should be noted, however, that Jeletzky (1940, 1941, 1946, 1948a–b, 1949, 1951a–b, 1955) was the only worker of the Russian school to use Nowak's (1913) nomenclature for the *Belemnitella*-like forms concerned, instead of the above discussed standard Russian nomenclature for the same.

The Russian stratigraphical, palaeontological and regional geological papers and monographs devoted to or touching upon the subject of *Belemnitella mucronata*, other *Belemnitella*-like forms, and their zones run into several hundreds. The most important publications which appeared prior to the Second World War, and some of the publications which have appeared after it, are listed by Jeletzky (1951b, pp. 135–142; 1955, pp. 503–509; 1958, pp. 42–46, 53–57, 113–129).

Because of their wide geographical distribution and stratigraphical importance, *Belemnitella mucronata* sensu Arkhangelsky, all other *Belemnitella*-like forms sensu Arkhangelsky, and their zones sensu Arkhangelsky have entered most of Russian text-books and treatises on stratigraphical palaeontology and historical geology, many Russian text-books and treatises of invertebrate palaeontology, and all Russian manuals of index fossils and regional stratigraphy. Some of these are listed by Jeletzky (1951b, pp. 135–142; 1955, pp. 503–509; 1958, pp. 113–129). In addition the following selection of these works, which happen to be available to the writer in Ottawa, can be given here:

(a) Standard treatises on general historical geology by Korovin (1940, pp 341–43; fig. 175–6), Strachov (1938, 2; 1948, 2, p. 220, 223, 207, pl. 25, fig. 7–8) and Masarovich (1937); (b) Masarovich's (1938, pp. 94–95, 129, 193, 297–298) Fundamentals of Geology of U.S.S.R.; Zhemchuzhnikov's (1934) Manual of Palaeofaunistics; Bodylevsky's (1955, pp. 121–122, pl. 68, figs. 267–269) Small Atlas of Index Forms of the U.S.S.R.

The following is a selection of the most important post Second World War Russian papers and monographs extensively dealing with or entirely devoted to the Russian Upper Cretaceous *Belemnitella*-like forms, which use *Belemnitella mucronata*, other *Belemnitella*-like forms, and their zones in the sense of Arkhangelsky (1912) with or without the above mentioned additions (Kabanov, 1950; Michailov, 1947, 1948, 1951; Savchinskaja, 1950, 1952; Sobolevskaja, 1951; Bushinsky, 1954; Morozov, 1952; Pasternak and Smirnova, 1948; Vassilenko & Rasmyslova, 1950; Naidin, 1951, 1952, 1954, 1955, 1959). It should be stressed that Arkhangelsky's usage of these Upper Cretaceous belemnites and their zones is still the only one used in Russia and that all the above mentioned modern Russian authors refuse steadfastly to use the nomenclature of the *Belemnitella*-like forms used by Nowak (1913) and Jeletzky (1940–1955) discussed in the following paragraph.

8. In addition to having introduced the generic name *Belemnella* and restricting the generic name *Belemnitella*, Nowak (1913) produced a revision of the Polish late Upper Cretaceous *Belemnitella*-like forms, which is rather similar to that previously worked out by Arkhangelsky (1912) in several respects. Nowak (1913, pp. 390–393, 395–402, pl. 42, fig. 18–19, 21, 22, 25–26) did not restrict, however, the name *Belemnitella mucronata* to the *Belemnitella*-like form of the Upper Campanian rocks as Arkhangelsky (1912) did. He, instead, identified the Polish Upper Campanian *Belemnitella*-like form as *Belemnitella mucronata* (Schloth.) mut. *senior* Nowak, 1913. Nowak (1913, p. 397), furthermore, pointed out that his *Belemnitella mucronata* mut. *senior* may be distinct from *Belemnitella mucronata* of Arkhangelsky (1912). The closely related *Belemnitella*-like form occurring in the Upper and (?) Lower Maestrichtian rocks of Poland and western Europe was named *Belemnitella mucronata* (Schloth.) mut. *junior* Nowak 1913. When designating these two *Belemnitella*-like forms as new mutations of *Belemnitella mucronata* (Schloth.) Nowak has, of course, nomenclatorially separated them both from Link's (1807) species *Belemnites mucronatus*. As far as his *Belemnitella mucronata* mut. *senior* is concerned, this is even more strongly stressed by his above mentioned doubts as to its identity with *Belemnitella mucronata* of Arkhangelsky (1912).

Except for its assignment to the new subgenus *Belemnella*, Nowak used *Belemnella lanceolata* (Schloth.) and its zone in the same sense as Arkhangelsky (1912) did.

The *Belemnitella*-like species and mutations described by Nowak (1913) were almost immediately accepted by most Polish authors (e.g. Rogala, 1916; Siemiradzki, 1928; Skolozdrówna, 1929, 1932; Kongiel, 1935, 1937; Rózicki, 1938; Poz̊ariski, 1938, 1948; Poz̊riska & Poz̊ariski, 1951; Putzer, 1942). They are still in common use in Poland, and even workers who have stated their disagreement with Nowak's belemnite nomenclature and taxonomic conclusions (e.g. Kongiel, 1937, p. 5, 1962; Požariski 1938, pp. 44–45) have continued to use his belemnite species and mutations.

The belemnite zonal table of Nowak (1913, 1917) proved to be unsatisfactory in several respects. Its validity was almost immediately questioned by Rogala (1916). Subsequently it was revised by Skolozdrówna (1929, 1932), Požariski (1938) and Jeletzky (1948b, 1951b). The last mentioned worker has finally (1951b) arrived at a belemnite zonal scheme, which appears to be valid (except in some details) for the Upper Campanian and Maestrichtian rocks of England, western Europe, German-Scandinavian region, and Poland and is now used by most workers of these countries.

Further details of the vagaries of Nowak's (1913, 1917) belemnite zonal scheme and his admittedly unfortunate belemnite nomenclature are irrelevant for the purpose of this appeal. From its standpoint it is only important that Nowak (1913, 1917) has restricted the name *Belemnitella mucronata* to the same group of *Belemnitella*-like forms as Arkhangelsky did, while at the same time having generically separated them from *Belemnites lanceolatus* Schlotheim, 1813. This nomenclatorially incorrect action was generally accepted by the Polish specialists concerned. Consequently in Poland (as well as in Russia since Arkhangelsky, 1912) the name *Belemnitella mucronata* has come to mean this particular group of forms to the majority of Polish palaeontologists and geologists concerned since the time of publication of Nowak's (1913, 1917) results. Like their Russian colleagues, these Polish geologists and palaeontologists were unaware of the nomenclatorial invalidity of this concept of *Belemnitella mucronata* until the appearance of Wind's (1955) paper.

9. Prior to Jeletzky's (1946, 1948a–b, 1951a–b, 1955, 1958) attempts to apply the above discussed Russian-Polish palaeontological and stratigraphical results to England, west-european countries and northwest-european countries, there was no generally recognized concept of restricted *Belemnitella mucronata* and other *Belemnitella*-like forms in any of these countries. Nor was there any attempt to use *Belemnitella mucronata* or any other *Belemnitella*-like forms for the purposes of detailed zonal stratigraphy. Since the appearance of the above papers of Jeletzky, however, the principal Polish-Russian results were accepted by the majority of workers of these countries (e.g. Wright & Wright, 1951, pp. 3, 10; Voigt, 1951, 1954; Schmid, 1951, 1953, 1955a–b; Seitz, 1952; Troelsen, 1955; Wicher, 1953; Bettenstaedt & Wicher, 1955; Reyment, 1956, pp. 41–42; A. Müller, 1951, pp. 28–29, pl. IV, 1952, p. 375, pl. I, fig. 1; Hiltermann, 1952, pp. 47, 60–61, 63; Hiltermann and Koch, 1950, p. 597, 1955, pp. 358–363; Hägg, 1954, p. 60; Hagn, 1953; Grube, 1955). These results were, furthermore, accepted in the most important modern Treatise of Palaeontology edited by Piveteau (Roger, 1952, pp. 721–723, fig. 52–53), Müller's (1960) Textbook of Palaeontology and in the last edition of Kayser's Abriss der Geologie (Brinkman, 1954, Table opp. p. 220).

Although not as deeply rooted as in Russia and Poland, the above discussed nomenclatorial-taxonomic usage of *Belemnitella mucronata*, of other *Belemnitella*-like species, and of their zones is now generally adopted also in all west-european and northwest-european countries, and in England. This usage was, furthermore, by no means unknown in west-european and north-west european countries prior to its introduction thereto. Already Bülow-Trummer (1920) had expressedly adopted the Russian-Polish nomenclature of the *Belemnitella*-like forms in his Dibranchiata part of the Fossilum Catalogue, although being inaccurate in many details of synonymy of the species concerned. Also Bubnoff (1926, pp. 182–183; 1935, pp. 967, 989, 990, 1004); Stolley (1928, p. 116), Daque (1942, p. 78, pl. 37, fig. 4; pl. 39, fig. 7), Riedel (1942, p. 24; 1950) and Hägg (1947, pp. 97–99) recognized it at least in part. These authors did not believe, however, that these *Belemnitella*-like forms occurred commonly in west- and northwest-european countries and that the east-european belemnite zonal table could be equally well applied there (e.g. Bubnoff, 1935, p. 967; Riedel, 1950, p. 384). Therefore little attention was paid to the Russian-Polish taxonomical and stratigraphic results until they were shown to be applicable to northwest-european and west-european countries and to England.

10. It should also be stressed that whatever usage there was in west-european and northwest-european countries, and in England prior to introduction of the Russian-Polish palaeontological and stratigraphical results into these countries, this usage has tended to restrict the use of the name *Belemnitella mucronata*, Link, 1807 to the same group of forms as in Poland and Russia; that is to *Belemnitella*-like forms with large Schatsky Index and other features characteristic of the genus *Belemnitella* d'Orbigny, 1840 as amended by Nowak (1913) and Jeletzky (1941).

Already Sowerby (1829, pp. 205–207, pl. 600, fig. 1–2, 4) had figured under the name of *Belemnites mucronatus* only such *Belemnitella*-like forms from the Norwich Chalk. According to Birkelund & Rasmussen (1956) the same applies to Nilsson (1827). As already mentioned, d'Orbigny (1840), the author of the genus *Belemnitella*, figured under the name of *Belemnitella mucronata* only such Upper Campanian and Maestrichtian forms with large Schatsky Index and other morphological features of *Belemnitella* in the sense of Nowak (1913) and Jeletzky (1941). The same is true of the monographs of Sharpe (1853–57), Moberg (1884, 1896) and many other monographs and papers dealing with this group of belemnites.

Instances where forms with the small Schatsky Index and other morphological features of the genus *Belemnella* in the sense of Nowak (1913) and Jeletzky (1941) were figured under the name of *Belemnites mucronatus* together with the previously discussed forms or alone are much less numerous (see Jeletzky, 1949, pp. 263–266). It is, furthermore, quite obvious in all such instances that inclusion of these forms did not represent the intention of these workers to correct the longstanding nomenclatorial misinterpretation of *Belemnites mucronatus*, Link sensu Schlotheim, 1913. The inclusion of these *Belemnitella*-like forms into *Belemnites mucronatus* Link, 1807 merely reflected the already mentioned traditional lumping of all or most of the *Belemnitella*-like forms under the collective name *Belemnites* or *Belemnitella* " *mucronata* " by English, west-european, and northwest-european workers.

A good example is provided by Naef's (1922, p. 201, 255, fig. 70a–d) reproduction of *Belemnella lanceolata* sens. lat. under the name of *Belemnitella mucronata* (Schloth.) cited by Wind (1955, p. 663) as an example of the nomenclatorially correct use of this name in west-european literature. Although

Naef's figure of *Belemnitella mucronata* represents a *Belemnella lanceolata* sens. lat. (actually *Belemnella lanceolata* mut. *junior* Nowak, 1913) in the sense of Nowak (1913) and Jeletzky (1941), its choice is obviously accidental. Naef (1922, p. 255) cites, indeed, Zittel's specimen belonging to *Belemnitella mucronata* sensu Arkhangelsky 1912 as another example of this species. He states, furthermore, that: " an dieselbe [that is a *Belemnitella mucronata;* writer's remark] schliessen sich mehrere ähnliche Arten des Senon, mehr oder wenig keulenförmig gestreckt (*B. mucronatus* Schloenbach, 1867) bzw. zylindrisch verkürzt (*B. Hoeferi* Schloenbach, Taf. 16, fig. 1) ". As shown by Jeletzky (1949, p. 264), the *B. mucronatus* of Schloenbach (1867, pl. 16, fig. 2), cited by Naef as specifically distinct from the *Belemnitella mucronata* he figures, is a rather typical *Belemnella lanceolata* (Schloth.) in the sense of Nowak and Jeletzky. Far from intending to use the name *Belemnitella mucronata* in the nomenclatorially correct sense, Naef (1922) apparently intended to restrict it in the sense of Arkhangelsky, Nowak, and Jeletzky and to separate *Belemnella lanceolata* from it.

11. It is obvious from the details given in the preceding paragraphs that the results of strict application of the Rules in this case would be disastrous on a generic level. Being the subjective junior synonym of the genus *Belemnitella* d'Orbigny, 1840 the accustomed and widely used generic name *Belemnella* Nowak, 1913 would have to be placed into synonymy of the former name. What is even worse, the name *Belemnitella* would have to be used for the taxonomically and stratigraphically important group of species now generally known under the name *Belemnella* instead of being used for another equally important species group, which is now generally known under the name *Belemnitella*.

The group of forms now universally known under the generic name of *Belemnitella* would be left without a legitimate generic name and would have to be renamed. These taxonomically disastrous results of the strict application of the Rules resulting in exchange of these two generic names would be further aggravated by the fact that these genera are stratigraphically important. Consequently they are constantly used by stratigraphers, structural geologists and other related specialists throughout northern Eurasia and also in North America.

As demonstrated in previous paragraphs, the results of the strict application of the Rules would be equally devastating at specific level. The generally accepted interpretation of the well known and stratigraphically important specific name *Belemnitella mucronata* would have to be changed. This name would have to be transferred to cover another *Belemnitella*-like form belonging to a different genus and occurring in a much younger zone (late Lower Maestrichtian). The widespread and stratigraphically important Upper Campanian *Belemnitella*-like form now generally known under the name *Belemnitella mucronata* (Schloth.) would have to be renamed. It is not at all clear which of its subjective junior, and mostly completely unfamiliar, synonyms would have to take its place under the Rules. Any of the possible selections would be quite unsatisfactory and would cause hardship to the palaeontologists, stratigraphers and related specialists concerned in using the name *Belemnitella mucronata* for the aforementioned *Belemnitella*-like form.

This action would completely disrupt the by now well established zonal scheme of the boreal late Upper Cretaceous (Upper Campanian and Maestrichtian) rocks of Eurasia, which is now used by most workers from Western Siberia to England.

In other words, 52 years of gradually developing palaeontological and stratigraphical terminology which has finally become thoroughly established and almost unanimously adopted on a global scale, would be overturned by the strict application of the Rules in this case.

12. The writer considers that the above discussed officially invalid nomenclature of Upper Campanian and Maestrichtian *Belemnitella*-like forms now in common use has become so firmly entrenched in the palaeontological and stratigraphical literature, and has so deeply penetrated the technical, as well as the general, geological literature that nothing but instability and confusion would result from an attempt to apply the ordinary Rules in this case. Such a request recently made by Wind (1955, pp. 663–664) is, therefore, quite unreasonable.

It must be stressed that the application of the ordinary Rules in this case is likely to result in the transfer of the well known generic names *Belemnitella* and *Belemnella*, as well as that of the well known specific name *Belemnitella mucronata* (*see* under 13), and the " transference of well known names from one genus and species to another " has been specifically mentioned by the International Commission on Zoological Nomenclature as one of the most important reasons for the suspension of Rules and the preservation of the affected generic and specific names under the plenary powers (*see* Opinions and Declarations rendered by I.C.Z.N., Declaration 5, publ. in 1943, p. 34).

13. Wind's (1955, pp. 663–664) demand for the strict application of normal Rules is based on the incorrect assumption that Schlotheim's (1813, p. 111) examples of *Belemnites mucronatus* are the legitimate cotypes of this nominal species. It was, however, pointed out to the writer first by Mr. L. Bairstow and then again by Miss Margaret Spillane that the Breynius (1732, fig. 1a, 2b) specimens of *Belemnites mucronatus* are not types of Link's species—however much they have been mistakenly regarded as such. If, as the writer assumes (*see* under 2), Schlotheim's (1813, p. 111) *B. mucronatus* was merely a citation of Link's (1807) name, his examples of the same have no possible bearing on the unfigured type(s) of Link's species. If, on the other hand, Schlotheim's (1813, p. 111) *B. mucronatus* was a new name unrelated to Link's (1807) *B. mucronatus* (as Mr. L. Bairstow assumes; *see* under 2) then it is nomenclatorially invalid as a junior homonym of the latter. No useful purpose would, in the writer's opinion, be served by an attempt to designate a neotype for *Belemnites mucronatus* Link, 1807 under the provisions of normal Rules. Such an attempt is obviously apt to cause even more confusion than an attempt to recognize Schlotheim's (1813, p. 111) examples of *Belemnites mucronatus* as the valid types of this nominal species. Even if they should still exist, which is most doubtful, Link's (1807) syntypes of this insufficiently defined species could easily represent any of the twenty or more of the valid species (belonging to any one of at least four valid genera) of the family Belemnitellidae. Worse even, they could equally well belong to some unrelated Lower Cretaceous or Jurassic belemnite

species, many of which have distinctly mucronated apical ends of the guards. Furthermore, nothing is known of the type locality of *Belemnites mucronatus* Link, 1807. It would, therefore, be quite inadvisable to start a slow and time consuming search for a neotype of *B. mucronatus* Link that would be at the same time acceptable under the normal Rules and in harmony with the now customary interpretation of this nominal species. This application specifically requests, therefore, a designation of the neotype of the nominal species of *Belemnites mucronatus* Link, 1807 that would be in harmony with its existing usage under the plenary powers *but not* the selection of a neotype of the same in accordance with the relevant provisions of the normal Rules. It must be stressed, finally, that there are recent precedents for the course of action requested in this application (e.g. Z.N.(S.) 514 and 533 submitted by Mr. C. W. Wright).

14. The following colleagues were consulted in the course of the preparation of the present application and kindly allow the writer to state that they are in general agreement with the recommendations now submitted for consideration by the I.C.Z.N.: Prof. Dr. E. Voigt, Director, Geologisches Staatsinstitut Hamburg; Prof. Dr. O. Seitz and Dr. Fr. Schmid, Amt für Bodenforschung, Hannover; Prof. Dr. H. Schmidt, Geologisch-Paläontologisches Institut der Universität Göttingen; Dr. T. Birkelund, Mineralogical and Geological Museum, Copenhagen; Dr. H. Wienberg-Rasmussen, Mineralogical und Geological Museum, Copenhagen.

The writer was, furthermore, advised by Prof. Dr. E. Voigt that the Paläontologische Gesellschaft has decided to support the above recommendations after their thorough consideration at its Wilhelmshaven meeting in September, 1956.

Mr. Leslie Bairstow, British Museum (Natural History) has kindly arranged the loan of the collection of *Belemnitella mucronata* sensu Arkhangelsky, 1912 from Edward's Pit, Mousehold Heath, England and provided the writer with photographs of its specimens published in the Appendix; he has, furthermore, kindly read the original text of this application and made several valuable comments and criticisms of the same. Some of his criticisms were further commented upon in the previous paragraphs of this application. Miss Margaret Spillane, Scientific Assistant to the International Commission on Zoological Nomenclature, British Museum (Natural History) has made valuable comments and criticisms of the original text of the application. Some of these have been used in its final draft and commented upon in section 13 of the application.

The International Commission on Zoological Nomenclature is therefore asked:

(1) To use its plenary powers to set aside all specimens contained in the type series of *Belemnites mucronatus* Link, 1807, should these still be extant, as the cotypes and source of interpretation of this nominal species.

(2) To use its plenary powers to designate the specimen BM. C-43542 described and figured in the *Appendix* as the neotype of the nominal species *Belemnites mucronatus* Link, 1807. The reasons are given in the *Appendix*.

(3) To place the under-mentioned generic names on the Official List of Generic Names in Zoology:

- (a) *Belemnella* Nowak, 1913 (type-species *Belemnites lanceolatus* Schlotheim, 1813 by subsequent designation by Bulow-Trummer, 1920, p. 195) (gender of generic name: feminine).
- (b) *Belemnitella* d'Orbigny, 1840 (type-species *Belemnites mucronatus* Link, 1807 as proposed under (2) above, to be defined under the plenary powers) (gender of generic name: feminine).

(4) To place the under-mentioned specific names on the Official List of Specific Names in Zoology:

- (a) *lanceolatus* Schlotheim, 1813 (as published in the binominal combination *Belemnites lanceolatus*) (type-species of *Belemnella* Nowak, 1913).
- (b) *mucronatus* Link, 1807 (as published in binominal combination *Belemnites mucronatus*) as proposed under (2) above, to be defined under the plenary powers (type-species of *Belemnitella* d'Orbigny, 1840).

(5) To place the under-mentioned family-group name on the Official List of Family-Group Names in Zoology:

Belemnitellidae Pavlow, 1914 (type-genus *Belemnitella* d'Orbigny, 1840).

APPENDIX

NOTE ON *BELEMNITELLA MUCRONATA* (LINK, 1807) SENSU ARKHANGELSKY, 1912 AND ITS PROPOSED NEOTYPE

Introduction

Most modern workers (e.g. Birkelund, 1957; Jeletzky, 1958; Kongiel, 1962; Naidin, 1956, 1959; Nikitin, 1958; Peake & Hancock, 1961) agree that the species *Belemnitella mucronata* should be interpreted in the sense of Arkhangelsky (1912). Under this, now customary, interpretation the large but fairly slender and long, strongly sculptured and distinctly mucronated *Belemnitella*-like form characteristic of the lower and middle part of the so called *mucronata* beds in the restricted sense (Jeletzky, 1958; Peake & Hancock, 1961) of northern Eurasia is considered to be typical of the species. This form is thus characteristic of the latest Lower to mid-Upper Campanian in terms of the international standard stages.

Except for Kongiel (1962), all workers concerned have agreed that the only reasonably complete specimen of *Belemnitella mucronata* figured by Arkhangelsky (1912, pl. IX, figs 3, 9; pl. X, fig. 10) is a typical representative of its above mentioned form. This specimen should, thus, normally have been selected as its type. This being impractical for reasons given below, this note is devoted to the description and illustration of a proposed neotype specimen of *Belemnitella mucronata* sensu Arkhangelsky, 1912 and its typical subspecies. The name *B. mucronata mucronata* Naidin, 1956, is used herein for this form.

Proposed neotype specimen

Grounds for selection. As already suggested by Naidin (1956, p. 19) and Birkelund (1957, p. 30), the already mentioned specimen of *B. mucronata* figured by Arkhangelsky (1912) should be selected as its type. Kongiel (1962, p. 30) has pointed out, however, that none of the generically diagnostic internal features is actually known for this specimen. He has accordingly proposed to: " accept, as a tentative solution of this problem, as holotype the specimen [of] *Bel. mucronata* from the Upper Campanian of Bielegorowka near Lessiczansk (NW margin of the Donetz basin) figured in J. A. Jeletzky's paper (1948c, pl. XX, fig. 2a–b). The present writer describes similar forms under the name of *Bel. mucronata* Jeletzky (non Schlotheim), 1948."

The writer considers that Arkhangelsky's (1912, pl. IX, figs. 3, 9; pl. X, fig. 10) specimen concerned is undoubtedly a true representative of the genus *Belemnitella* and of species *B. mucronata* as currently interpreted (*see* para. 4–7 of this appeal). It shows, indeed, the typical *Belemnitella*-like character of the main vascular imprints branching off the double dorso-lateral furrows in the posterior part of the flank (Arkhangelsky, 1912, pl. IX, fig. 9). Considering the characteristic shape of the guard and its Upper Campanian age (*Belemnitella mucronata* zone; Jeletzky, 1958, p. 38–48) of this specimen, there can be little doubt about its true generic and specific nature. This specimen is, however, definitely lost according to Doctors D. P. Naidin (written communication to the writer of September 30th, 1957) and P. N. Varfolomeev (a subsequent written communication to Dr. Fr. Schmid communicated by the latter colleague to the writer on October 2nd, 1963) who had made a special search for it in all major collections of Moscow and Leningrad. It would, therefore, be quite inadvisable to propose this specimen as the substitute type of *Belemnitella mucronata* (Link, 1807) sensu Arkhangelsky, 1912.

The alternative type specimen proposed for *Belemnites mucronatus* Link, 1807 sensu Arkhangelsky, 1912, by Kongiel (1962, p. 30) is rather inappropriate in representing the extremely short and corpulent form of the species known under the name *Belemnitella mucronata* mut. *senior* Nowak, 1913. Although this form is but an extreme variant of the species concerned according to Jeletzky (1951b, 1958, p. 44–45) it certainly is not typical of it; it is, furthermore, a valid taxon of its own under the Rules. Kongiel's (1962, p. 30) choice of type specimen for *Belemnites mucronatus* Link, 1807 sensu Arkhangelsky 1912 lacks, finally, any validity under the Rules as he proposes to recognize J. A. Jeletzky as the author of *Belemnitella mucronata* sensu Arkhangelsky, 1912 instead of Link (1807).

In view of the above circumstances it seems best to propose as a neotype a specimen from a well known section of the Upper Campanian age personally studied by the writer and preserved in one of the internationally known palaeontological museums. This course is followed in this *Appendix*.

Type Reference. The specimen reproduced photographically in pl. 1, figs. 1A to 1D inclusive is herewith proposed as a neotype of *Belemnites mucronatus* Link, 1807 and its typical subspecies *Belemnitella mucronata* (Link, 1807) *mucronata* Naidin, 1956. This specimen was collected by Mr. A. W. Rowe from the *Belemnitella mucronata* zone s. str. (=Upper Campanian) at Norwich, Norfolk, England. The locality is the Edward's Pit at Mousehold Heath (Pit 160 of Rowe's Ms) (? St. James Hill). The specimen forms part of Mr. A. W. Rowe's collection purchased by the British Museum (Natural History) in November, 1926. The exact level within the chalk pit is not known either for this or for any other belemnite specimen of this collection. The specimen is preserved in the palaeontological collections of the British Museum (Natural History), Cat. No. BM-C.43542.

Description

Guard is large for the species and subspecies and so presumably full grown. It is almost complete in the alveolar part as its wall is only 2·3 mm. thick at the top. The preserved total length of the guard (107·5 mm.) is, nevertheless, well below the maximum preserved length of the guard (about 135 mm.) known for the species and subspecies. The guard is rather slender for the genus and species as illustrated by the ratio of its relative length (Nowak, 1913; Kongiel, 1962, p.10) to the dorso-ventral diameter at the base of the ventral fissure of 5·1.

The cross-section of the alveolar end is almost perfectly rounded with the dorso-ventral diameter slightly exceeding the lateral diameter. The guard's cross-section remains nearly circular and but slightly compressed laterally throughout its anterior half. At the base of the ventral fissure, for example, the dorso-ventral diameter is 17·3 mm. as compared with the lateral diameter of 17·1 mm. The lateral compression is almost absent here as illustrated by the ratio of the diameters of 1·01.

In the lower half of the guard it becomes somewhat compressed dorso-ventrally with the lateral diameter always exceeding the dorso-ventral diameter. At the level 36 mm. above the apex, for example, the dorso-ventral diameter is reduced to 14·4 mm. as compared to the lateral diameter of 17·1. The resulting ratio of the diameters is only 0·84.

The ventral surface of the guard is only slightly flattened in its upper half and somewhat more noticeably so in its lower half. The so-called dorsal field of the guard confined between the double dorso-lateral furrows and longitudinal depressions of the same is fairly markedly flattened, except in the proximity of the alveolar end where it becomes appreciably arched.

In ventral aspect the guard is almost cylindrical except in its lower third. No contraction has been noted at the base of the alveolus or thereabout. The downward tapering of the guard is almost imperceptible throughout its anterior half; it becomes somewhat more distinct in the lower half where it gradually increases toward the apex until it becomes fairly marked at the level about 20 mm. above the apex. Rapid but regular contraction ensuing 3 to 4 mm. above the apex results in a narrow but obtuse and regularly rounded apical end of the guard. A centrally located, well defined, small mucro, part of which is broken off, is superimposed on this latter.

In lateral aspect the guard is very high conical throughout; it tapers gently and evenly all the way from its alveolar end to the point about 3 mm. above the apex. Further down it contracts rapidly to form the already described apical end and mucro, which have the same appearance in the lateral as in the ventral aspect.

In dorsal aspect the guard has essentially the same shape as in the ventral aspect.

The surface of the guard is covered by the, mostly numerous and closely spaced, transverse to more or less oblique, strongly ramifying vascular imprints and by more or less numerous and crowded, short, slightly wavering, longitudinal striae.

The vascular imprints are most strongly and densely developed on the ventral and both lateral sides of the guard. On each side the principal vascular imprints originate in or at the double dorso-lateral furrows, dorso-lateral depressions and single lateral furrows. Most of them extend therefrom toward the ventral side of the guard throwing off numerous, complexly bent branches and becoming finer and finer and more and more crowded in this direction. The two sets of vascular imprints meet, intertwine and often join with the ends of their branches near the centre of the ventral surface of the postfissural part of the guard. An extremely complex vascular pattern results therefrom. The fine vascular branches form an especially dense net and are most strongly developed around the ventral fissure and farther down on the anterior half of the ventral side of the guard. Some of these vascular imprints enter the ventral fissure from both sides and appear to join the furrows covering the surfaces of its ostracumlamelles (Jeletzky, 1946). The longitudinal striae are relatively weak and scarce on the lateral and ventral surfaces of the anterior part of the guard. Their intersection with the vascular imprints mostly results only in a feeble crosshatching of the latter but not in a distinct granulation of the guard's surface. Only in a few small areas of the ventral surface closely below the base of the fissure does this intersection result in the appearance of some ill-defined and irregularly shaped granules (pseudogranules of Kongiel, 1962, p. 11).

On the lateral and ventral surfaces of the posterior half of the guard the vascular imprints become weaker and weaker and simultaneously less and less closely spaced toward the apex. The longitudinal striae, on the contrary, become more and more pronounced, numerous and closely spaced until they become the dominant element of the ornament in the interval between the apex and the level 28–29 mm. above it. In this interval the ornamentation is, furthermore, generally much weaker than farther orad; it resembles strongly that of *B. praecursor* var. *mucronatiformis* or *B. langei* s.str.

Only rare, weak and indistinct vascular imprints and no longitudinal striae have been observed within the dorso-lateral longitudinal depressions.

The dorsal field of the guard is much more weakly sculptured than the venter and flanks of the anterior part of the guard. Its alveolar third is semi-smooth with weak, relatively widely spaced vascular imprints and extra fine longitudinal striae being about equally prominent. The middle third of the dorsal field is more strongly ornamented; its ornamentation is, nevertheless, considerably weaker than that of the corresponding parts of the flanks and venter. In this part of the dorsal field fairly weak and broadly spaced vascular imprints are more strongly developed than the longitudinal striae. The latter are, however, coarser and stronger than those of the anterior third of the dorsal field. On the apical third of the dorsal field, finally, the similarly developed longitudinal striae are the dominant element of the ornament just as they are on the corresponding parts of the venter and flanks.

The double dorso-lateral furrows are shallow, thin (about 0·33 mm. each) and closely spaced. The intervening rounded ridge is from 0·33 to 0·6 mm. wide. These furrows are only clearly developed within the posterior third of the guard where they are directly incised into the regularly rounded surface of the latter; they begin 5 to 6 mm. above the apex. Within this interval the double dorso-lateral furrows are essentially *Belemnitella*-like in their habit. Although they follow a slightly undulating course locally, they lack closely spaced, much more pronounced bends characteristic of *Belemnella* species. A few feeble vascular imprints, which are not visible on the photographs, branch off these furrows in the posterior quarter of the guard under acute angles not exceeding 25°. This is another *Belemnitella*-like feature.

Over the anterior two-thirds of the guard the double dorso-lateral furrows are considerably broader but mostly indistinct; within this interval they are situated on the bottom of broad dorso-lateral depressions. A third, more narrow dorso-lateral furrow occurs near the dorsal margin of each of these depressions throughout this interval. The intervening flat-topped ridge between the double furrows is at least 2·5 mm. wide within the depressions.

The dorso-lateral, longitudinal depressions are asymmetrical in cross-section, their dorsal slope being considerably steeper and much deeper incised than the ventral slope. It is not over 0·5 mm. deep, however.

Dorso-lateral longitudinal depressions gradually widen orad from 2 to 2·5 mm. at their lower end to 5·5 to 6 mm. at the alveolar rim of the guard; they become, however, more and more shallow in this direction. The gradual anterior widening of the dorso-lateral depressions results in corresponding narrowing out of the anterior part of the flattened dorsal side of the guard known under the name of the dorsal field in the same direction. The dorsal field is 13·5 to 14 mm. wide at the posterior end of the depressions (at the level 45 mm. above the apex) and only 8·5 mm. wide at the alveolar rim of the guard; it is, however, distinctly arched near the alveolar rim while being only slightly arched further apicad.

The single lateral furrows follow a zigzag course on the flanks of the anterior half of the guard. In their posterior parts these furrows run distinctly obliquely forming an angle of 8° to 15° with the longitudinal axis of the guard and gradually approaching the dorso-lateral depressions orad. At the level between 66 and 68 mm. above the apex unusually strong, subtransversal vascular furrows branch off the lateral furrows and connect them with the ventral rims of the longitudinal depressions; they form angles of 60 to 70° with the longitudinal axis of the guard. Farther orad several such furrows occur at irregular intervals on both flanks. The single lateral furrows gradually become weaker orad and are difficult to recognize near the alveolar rim of the guard.

The alveolus is regularly conical; it is 48 mm. deep and so comprises 0·44 of the total preserved length of the guard. The alveolar angle measured dorso-ventrally comprises about 18°. The inner surface of the conotheca is smooth, except for indistinct imprints of the septa. No traces of any ornamentation of conotheca, such as was observed by Jeletzky (1955, p. 484, pl. 56, fig. 4) near the apex of the alveolus of *B. praecursor* sens. lat., were seen. This could, however, be due to the somewhat weathered state of the surface of the conotheca in our specimen. A longitudinal dorsal furrow of usual appearance occurs in the middle of the dorsal surface of the conotheca.

The alveolar fissure is relatively short; its preserved part is only about 20 mm. long and so comprises only about 41 % of the preserved length of the alveolus. The Schatsky Index is 9·0 mm. The bottom of the ventral fissure is essentially straight, except for a slight bend in the middle which somewhat diminishes its angle with the alveolar wall closer to the surface of the guard. A sharp outward bend of the bottom occurs, however, just beneath the surface of the guard. The bottom of the ventral fissure forms an angle of 10° to 11° with the inner wall of the alveolus. A small, almost perfectly rounded protoconch occurs at the apex of the alveolus.

The apical line is situated somewhat closer to the ventral side of the guard; it is essentially straight, except in the lower third of the stem region where it deviates gradually and but slightly toward the dorsal side of the guard.

The outlines of juvenile guards are too imperfectly visible on the surface of the split up guard to be either photographed or drawn. Those parts of them that are visible, however, are enough to show that the ontogenetic development of the guard BM-C-43542 was essentially similar to that of the somewhat more slender topotype BM-C-43545 shown in pl. 1, fig. 4C and in text-fig. 1. In this latter specimen the first visible juvenile guard (which barely surrounds the protoconch) is nail-like, or perhaps better wedge-like, in lateral aspect. The total length of this guard is about 15 mm.; its length below the protoconch is about 9 mm. whilst its dorso-ventral diameter at the protoconch's level is about 1·5 mm. The earliest growth-stages of our form are, thus, rather slender and similar to those of *Belemnitella* n.sp. aff. *mucronata* Jeletzky (1948b, text-fig. 2) rather than to the much shorter and sturdier growth-stages of *Belemnitella mucronata* mut. *senior* Nowak.

The older juvenile guards retain similarly slender proportions at least until they reach the total length of about 62 mm. At that length the juvenile guard of BM-C-43545 has the length below the protoconch of about 37 mm. and the dorso-ventral diameter at the protoconch's level of about 7 mm. This juvenile guard still lacks any traces of a mucro; it already has, however, a subcylindrical outline, except in its acute and long apical region. The next clearly visible, half-grown guard of BM-C-43545 (*see* text-fig. 1) has the length below the protoconch of about 67 mm. and the dorso-ventral diameter at the protoconch's level of 13·5 mm. This guard is already quite similar to the adult guards of the specimens BM-C 43542 and 43545 so far as the proportions, shape, and the mucronated appearance of its apical end in the lateral aspect are concerned.

In the specimen BM-C-43542 the last non-mucronated and acute-pointed juvenile guard apparently has the length below the protoconch of about 38 mm.

Type Series. In addition to its proposed type-specimen (pl. 1, fig. 1A-1D), the writer was able to study twenty-one topotypes of *Belemnitella mucronata mucronata.* The majority of these are large, presumably full grown, almost complete representatives of our form. The range of morphological variation within this series is illustrated by two large guards shown in pl. 1, figs. 3–4 representing its morphological extremes. The type itself (BM-C-43542; pl. 1, fig. 1) is a morphologically intermediate (" mean ") form.

The specimen shown in pl. 1, figs. 3A, 3B is a considerably sturdier and stronger sculptured form than the proposed type of the subspecies. It shows, furthermore, a slight contraction of the guard at the level of the lower end of ventral fissure in ventral and dorsal aspect; its ventral and dorsal surfaces are, finally, more markedly flattened and compressed than those of the proposed type specimen. In all other respects, including the value of the Schatsky Index (8–8·5 mm.) and the appearance of the bottom of ventral fissure, this specimen does not differ materially from the latter. It is, on the whole, morphologically similar to the early forms of *B. mucronata mucronata* figured by Jeletzky (1955, pl. 57, fig. 1a, 1b) and also resembles somewhat *B. mucronata senior* (*see* Jeletzky, 1955, pl. 57, fig. 5a, 5b; this note, pl. 1, figs. 2A, 2B.

The specimen reproduced in pl. 1, figs 4A–4C is considerably more slender and longer than the proposed type-specimen. It is, furthermore, slightly " waisted " in ventral and dorsal aspects and tapers less in the lateral aspect. Its ventral fissure is, finally, noticeably longer than those of two other figured specimens.

In all other features, including the Schatsky Index (9·5–10 mm.) and the outline of the bottom of ventral fissure (pl. 1, fig. 4C) this specimen does not differ materially from the proposed type specimen. The here discussed specimen is, on the whole, transitional to *Belemnitella minor*; it differs, however, from this latter in its small fissure angle and the essentially straight outline of the bottom of ventral fissure.

Horizon and Age. The exact level from which the specimen BM-C-43542 and other Mousehold belemnites have been collected is unknown. Nor is the level of the Edward's pit within the restricted *Belemnitella mucronata* zone (= Upper Campanian) known, except that it is somewhere within its upper half. The composition of the Mousehold belemnite collection studied is deemed, however, to be sufficient to answer this question.

Large and typical representatives of *B. mucronata mucronata* Naidin, 1956, predominate in the collection studied. *B. mucronata senior* Nowak, 1913 is, on the contrary, absent. Even the transitional forms between *B. mucronata mucronata* and *B. mucronata senior* are rare. The predominant typical representatives of *B. mucronata mucronata* are, at the same time associated with less numerous transitional forms between *B. mucronata mucronata* on the one hand and *B.* sp. n. aff. *mucronata* Jeletzky 1948, *B. minor* Jeletzky, 1951 and *B. langei* Jeletzky 1948 s.str. on the other. Rare, more or less typical representatives of *B. langei* Jeletzky, 1948, *B. minor* Jeletzky, 1951 and *B. lanceolatus* Sharpe, 1857 non Schlotheim, 1813 are also present.

Provided that only one belemnite fauna is represented in this collection, the Mousehold belemnite fauna corresponds approximately either to that occurring in the topmost beds of *Belemnitella mucronata* mut. *senior* zone or to that of the basal beds of *Belemnitella* sp. n. aff. *mucronata* Jeletzky, 1948 zone of the Dniepr-Donetz basin (Jeletzky, 1958, p. 38–48, table opp. p. 112). A position somewhat above the middle of the British *Belemnitella mucronata* zone (in restricted sense of Wright & Wright, 1951) appears to be indicated. The writer would suggest the top part of Weybourne Chalk of Peake & Hancock (1961, p. 317, 319) as the most likely source of this belemnite fauna.

Judging by the stratigraphical information provided by Mr. Leslie Bairstow (considerable thickness of chalk exposed in the pit 160 and Mr. A. W. Rowe's practice of amalgamating all fossil collections made in any single pit) more than one belemnite fauna could well be represented in the Mousehold collection studied. Should this be so, the large and typical representatives of *B. mucronata mucronata* should be older than the other belemnite forms of the same collection and would most likely represent some level within the top part of *B. mucronata* mut. *senior* zone as defined by Jeletzky (1958, p. 38–48). It should be noted in this connection that Naidin (1956, p. 19) has already suggested that the Russian representatives of *B. mucronata mucronata*, which are indistinguishable from its Mousehold representatives (*see* Arkhangelsky, 1912, pl. IX, figs. 3, 9; pl. X, fig. 10; Naidin,1959, text-fig. 23), probably occur in a subzone of their own. According to him, this subzone overlies the subzone of *B. mucronata senior* and underlies that characterized by belemnite forms transitional to *B. langei* sens. lat.

The proposed neotype of *B. mucronata mucronata* and all of its studied topotypes are, at any rate, " high " forms of this subspecies (in sense of Jeletzky, 1955, p. 480, text-fig. 1) often approaching *B. minor* Jeletzky, 1951 in their morphology.

Comments on Belemnitella mucronata mucronata Naidin, 1956. Naidin (1956, p. 19; 1959, p. 203–4) and Jeletzky (1958, p. 45) have already proposed a subspecific name *Belemnitella mucronata mucronata* for the *Belemnitella* form typified by the above described Mousehold specimen. The type specimen of the species being automatically the type of the nominate subspecies, the subspecies *mucronata* is dated from Naidin (1956). The proposed substitution of type of the species also will automatically substitute it for the nominate subspecies (see Code Art. 61a).

The following previously published guards can, in the writer's opinion, be identified as *B. mucronata mucronata* Naidin, 1956.

Belemnitella mucronata, Moberg, 1885, pl. VI, fig. 13 (not others).

Belemnitella mucronata, Arkhangelsky, 1912, pl. IX, figs. 3, 9; pl. X, fig. 10.

Belemnitella mucronata, unnamed early variety, Jeletzky, 1955, p. 480, text-fig. 1; pl. 57, fig. la, 1b.

Belemnitella mucronata mucronata, Naidin, 1956, p. 19.

Belemnitella mucronata (sensu Arkhangelsky, 1912 only), Birkelund, 1957, p. 30–31.

Belemnitella mucronata var. *mucronata*, Jeletzky, 1958, p. 45.

Belemnitella mucronata, Nikitin, 1958, p. 17–19, pl. VII, figs. 1–5; pl. VIII, figs. 1, 3; pl. IX, figs. 1, 2; pl. X, fig. 1.

Belemnitella mucronata mucronata, Naidin, 1959, p. 203–4, text-fig. 23.

Belemnitella mucronata, Kongiel, 1962, p. 29–30, 92–95, pl. XVIII, figs. 10–12 (not others).

As pointed out by Jeletzky (1955, p. 480, text-fig. 1), the widespread and prolific form herein named *B. mucronata mucronata* is actually a morphologically intermediate (" mean ") form of the *Belemnitella mucronata* species group connecting its morphologically extreme forms, such as *B. mucronata senior*, *B. mucronata elegans*, and *Belemnitella* sp.n. aff. *mucronata* Jeletzky 1948 with one another. It is at the same time much more closely allied to the above mentioned early forms of the *B. mucronata* species group and to *B. praecursor* sens. lat. than to its younger members, such as *B. langei* Jeletzky, 1948 non Birkelund, 1957, *B. minor* Jeletzky, 1951, *B. lanceolatus* Sharpe, 1857 non Schlotheim, 1813 (= B. *langei* Birkelund non Jeletzky, 1948) and *B. junior* Nowak s. str.

Like all the above mentioned early (late Lower to mid-Upper Campanian) representatives of *B. mucronata* species group, *B. mucronata mucronata* is characterized by the essentially straight course of the bottom of the ventral fissure, small fissure angle, which usually does not exceed 20°, and a relatively short ventral fissure.

All the above mentioned younger (mid-Upper Campanian to Maastrichtian) representatives of the *B. mucronata* species group have, on the contrary, a more or less complexly bent bottom of the ventral fissure and a large fissure angle, which normally exceeds 40° and may reach 120°. Their ventral fissure is accordingly relatively (to the depth of the alveolus) longer than that of *B. mucronata mucronata* and its allies.

As repeatedly stressed by the writer (Jeletzky, 1951, p. 80; 1955, p. 480–91, text-fig. 1; 1958, p. 33, 42–43), all possible transitional forms between the representatives of these two form-groups are present in the mid-Upper Campanian rocks of all European countries.

The morphological distinctions of *B. mucronata mucronata* from *B. praecursor* sens. lat. have already been discussed by Jeletzky (1955, p. 496–7, expl. of pl. 57, fig. 1).

B. mucronata senior Nowak, 1913 is a much more corpulent and short form than *B. mucronata mucronata.* This difference is apparent at once in the specimens of these two forms shown in pl. 1 of this paper and in that of Jeletzky (1955, pl. 57, figs. 1, 5). It is best expressed quantitatively in the rather different ratios of the relative length of the guard to its dorso-ventral diameter at the base of alveolar fissure. The contrast between the slender and corpulent shape of the guard of the forms concerned is also observable in their juvenile and half grown guards. These growth stages of *B. mucronata mucronata* are always much more slender than the corresponding growth-stages of *B. mucronata senior* and closely comparable to those of *B. minor* and *B.* sp.n. aff. *mucronata* Jeletzky, 1948. Another distinction consists in the considerably stronger development of the vascular imprints on the posterior half of the guard of *B. mucronata senior*. The apical end of *B. mucronata senior* is finally considerably broader and more obtuse than that of *B. mucronata mucronata*. As already mentioned, however, all these distinctions are only valid for the typical representatives of both forms; their numerous transitional forms can only be designated as such.

B. sp.n. aff. *mucronata* Jeletzky, 1948b (text-figs. 1–2) differs from *B. mucronata mucronata* in the marked to pronounced dorso-ventral compression and flattening of its guard. Its guard is, furthermore, strongly to moderately lanceolate in ventral aspect and feebly lanceolate to subcylindrical in lateral aspect. The Schatsky Index of *B.* sp.n. aff. *mucronata* Jeletzky, 1948 tends, finally, to be smaller (4·5 to 6 mm.) than that of *B. mucronata mucronata* (6 to 10 mm.). There is, however, a considerable overlap in the values of this feature, especially where the transitional forms are concerned. The two forms concerned are, as a rule, indistinguishable in their fissure angles and in the shapes of the bottoms of their fissures. The same is true, furthermore, of the appearance of the juvenile and half-grown guards of *B. mucronata mucronata* and *B.* sp.n. aff. *mucronata*. It is for that reason that the writer includes the latter among the early rather than late representatives of *B. mucronata* species group.

B. mucronata mucronata and *B.* sp.n. aff. *mucronata* are connected by all possible transitional forms wherever their time ranges overlap (*see* Jeletzky, 1955, text-fig. 1, pl. 57, fig. 1).

Belemnites lanceolatus Sharpe, 1857 non Schlotheim, 1813 differs from *B. mucronata mucronata* in its much feebler sculpture and the weaker development of the mucro and abbreviated apical end of the guard; it is, furthermore, a distinctly lanceolate form with an apparently greater fissure angle.

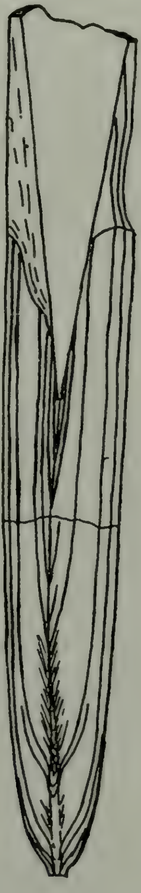
B. mucronata elegans Wassilenko & Rasmysslova, 1950 is, so far as we know (*see* Jeletzky, 1958, p. 44–45), a smaller, more slender and distinctly lanceolate form than *B. mucronata mucronata;* it seems to lack, however, the pronounced dorso-ventral compression and flattening of *B.* sp.n. aff. *mucronata* Jeletzky, 1948 and its lesser value of Schatsky Index. The early forms of *B. mucronata mucronata* (*see* Jeletzky, 1955, pl. 57, fig. 1) are often similar to *B. mucronata elegans* in the general shape of their guards.

As here defined, *B, mucronata mucronata* is a long-ranging form. Its earliest known representatives appear rarely already in the middle and upper parts of the so called *Pteria*-beds of SW Russia (Jeletzky, 1958, p. 33). It becomes rather common already in the uppermost Lower Campanian beds with *B. mucronata senior* and *Actinocamax* cf. *mammillatus* (Jeletzky, 1958, p. 42–43). The same is probably true of all the Scandinavian countries, northern Poland, northwestern Germany and England. It is not known whether *B. mucronata mucronata* occurs in the mid- to late Lower Campanian rocks of Belgium, France and middle Poland (Vistula profile) and it is quite possible that it did not penetrate into these regions until the earliest Upper Campanian time.

B. mucronata mucronata abounds in the early to mid- Upper Campanian rocks of northern Eurasia from the Urals to Great Britain (including Northern Ireland). It becomes scarce and possibly disappears completely already in the middle part of *Belemnitella* sp.n. aff. *mucronata* Jeletzky, 1948, zone by transmutation into *Belemnitella minor* Jeletzky and *Belemnitella* ex aff. *langei* Jeletzky, 1948 non Birkelund, 1957. Its records from younger beds are probably due to the confusion with extremely sturdy and subconical representatives of *B. minor.* The latter differ, however, from *B. mucronata mucronata* in their considerably longer ventral fissure, larger fissure angle and more or less complexly bent bottom of the ventral fissure. More careful bed by bed collecting is needed, however, to establish the upper age limit of *B. mucronata mucronata.*

The general appearance of the guards of *B. mucronata mucronata* changes appreciably within its known time range. So far as is known its evolutionary trend is the same from Central Russia to England. The late Lower and earliest

Upper Campanian representatives of *B. mucronata mucronata* are distinctly sturdier and shorter and have a deeper alveolus than its younger (e.g. Mousehold) representatives. Their shape of the guard is, at that, often less regular and the sculpture stronger. These early forms of *B. mucronata mucronata* are on the whole more similar to *B. mucronata senior* and *B. mucronata elegans* than are its younger representatives. The latter are, on the contrary, more similar to *B. minor*, *B.* sp.n. aff. *mucronata* Jeletzky, 1948, and the early allies of *B. langei* Jeletzky non Birkelund. For the time being at least, these " low " and " high " forms of *B. mucronata mucronata* are kept together as members of one and the same subspecies of *B. mucronata* sensu Arkhangelsky, 1912. There is a distinct tendency, however, to consider the " high " forms as typical of the subspecies (e.g. Naidin, 1956, p. 19; 1959, p. 203–4, text-fig. 23). The writer has followed this tendency in designating a " high " form as the neotype of the subspecies.



Text-fig. 1. *Belemnitella mucronata* (Link, 1807) sensu Arkhangelsky, 1912 subsp. *mucronata* Naidin, 1956. British Museum (Natural History), London, coll. no. BM.C–43545.

A schematical drawing of the ontogenetic development and other internal features of the longitudinally split (lateral view) guard shown in pl. 1, fig. 4C. Natural size.

EXPLANATION OF PLATE 1

All figures natural size

Figs. 1A–1D. *Belemnitella mucronata* (Link, 1807) sensu Arkhangelsky, 1912 subsp. *mucronata* Naidin, 1956. The proposed neotype. British Museum (Natural History), London, coll. no. BM.C–43542. Norwich Chalk, *mucronata* zone in restricted sense (upper Campanian). Norfolk, England, Edward's Pit at Mousehold (Pit – 160 of A. W. Rowe's Ms.) (? St James Hill). Collected by Mr. A. W. Rowe.
1A. Ventral view; 1B. Dorsal view; 1C. Lateral view; 1D. Lateral view of the inside of longitudinally split guard.

Figs. 2A. 2B. *Belemnitella mucronata* (Link, 1807) sensu Arkhangelsky, 1912 subsp. *mucronata* Naidin, 1956. A sturdy variant of the subspecies. British Museum (Natural History), London, coll. no. BM.C–43544.
Same locality, collector, etc. as for the specimen BM.C–43542. 1A. Ventral view; 1B. Lateral view.

Figs. 3A–3C. *Belemnitella mucronata* (Link, 1807) sensu Arkhangelsky, 1912 subsp. *senior* Nowak, 1913. A medium-sized specimen. Author's private collection at the Geological Survey of Canada, Ottawa, Ontario.
Natural portland cement marls' unit. Early Upper Campanian, *Hoplitoplacenticeras* (= *Dechenoceras*) *coespheldiense* zone. Greater cement pit at Amvrossievka, Stalino province, Ukrainian SSR, USSR, southern margin of Donets basin. This specimen was reproduced graphically by Jeletzky (1951b, pl. 2, figs. 1a, 1b. 1A. Ventral view; 1B–1C. Two lateral views. The specimen is somewhat deformed (lateral compression) near the alveolar rim.

Figs. 4A–4C. *Belemnitella mucronata* (Link, 1807) sensu Arkhangelsky, 1912 subsp. *mucronata* Naidin, 1956. A slender variant of the subspecies transitional to *Belemnitella minor* Jeletzky in the shape and proportions of its guard, length of ventral fissure, etc. British Museum (Natural History), London, coll. no. BM.C–43545.
Same locality, collector, etc. as for the specimen BM.C–43542. 1A. Ventral view; 1B. Lateral view; 1C. Lateral view of the inside of longitudinally split guard. Compare with text-fig. 1.

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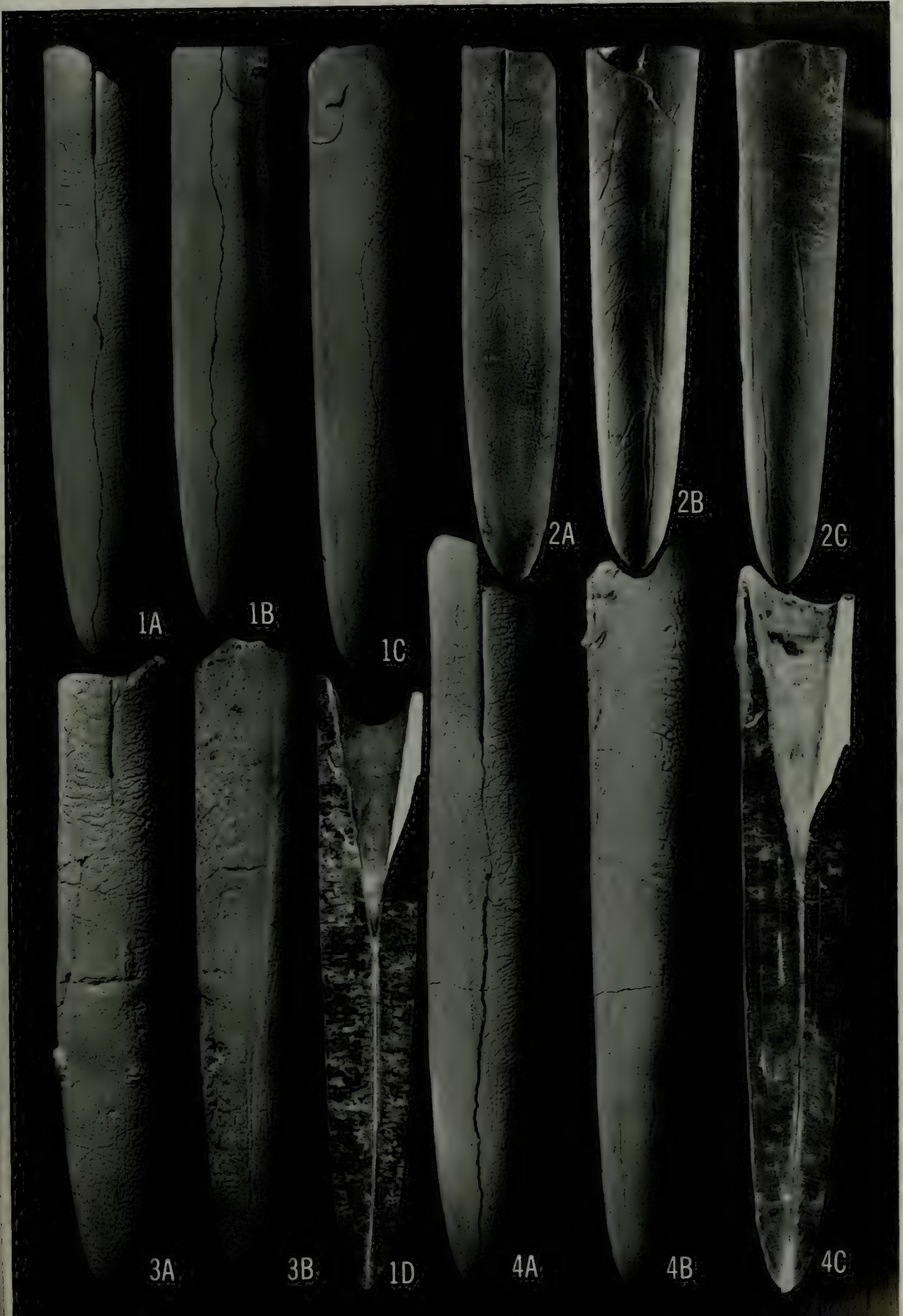
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ON THE IDENTITY OF *CLYPEASTER ROSACEUS* (LINNAEUS) AND SOME OTHER IRREGULAR ECHINOIDS. Z.N.(S.) 1616

By Ailsa Clark (*British Museum* (*Natural History*), *London*)

Lovén (1887, pp. 171–173) has demonstrated that Linnaeus' various diagnoses and descriptions of *Echinus rosaceus* in the Systema Naturae editions 10 (1758, p. 665) and 12 (1767, p. 1104) and the catalogue of the " Museum Ludovicae Ulricae " (1764, p. 713) agree with a specimen in the old royal collection maintained in Lund. Lovén gave a photograph of this specimen (1887, pl. 6, fig. 2) which shows that the tips of three out of the five petals are unnaturally asymmetrical, agreeing with the comment " apice parum mutilatis " in Linnaeus' description in the museum catalogue. As Lovén himself says, the species represented is not the West Indian one now known as *Clypeaster rosaceus* but is the species from the Indo-West Pacific which we now call *C. humilis* (Leske) but which in Lovén's day was generally known as *C. placunarius* (Lamarck). Linnaeus himself gave the locality of *rosaceus* as " O. Asiatico ".

In 1778 Leske (in Klein, p. 185; Additamenta, p. 121) used Klein's pre-Linnaean name *humile* in the combination *Echinanthus humilis* and put Linnaeus' *Echinus rosaceus* at the head of the references to earlier descriptions and figures of the species, indicating that he considered them synonymous (as observed by H. L. Clark in 1911, p. 594). Klein had briefly described and figured three " varieties " of *humile*, each since interpreted as a separate species (notably by A. Agassiz, 1872 and Mortensen, 1948). Variety α judging from the figures (Klein, 1734 and 1778, pl. xvii, fig. A and pl. xviii, fig. B) represents the West Indian species now known as *Clypeaster rosaceus* (but *not* the *Echinus rosaceus* of Linnaeus), variety β (pl. xix, figs. A and B) could well be the present *C. humilis*, while variety γ (pl. xix, figs. C and D) is a third species with more acute petals, possibly *C. subdepressus* (Gray).

Lambert (1905, p. 142, footnote) commented that Lovén had confounded several species under the name *Echinus rosaceus* and had proposed to take as the type the depressed Indo-West Pacific form. As I understand Lovén's prefatory argument, Linnaeus' specific diagnoses and description of *rosaceus* were based on a recognisable type specimen in Queen Louisa Ulrica's collection and the references to figures which have since proved to represent species other than the one currently called *C. humilis* were only included subsequently for the sake of comparison without necessarily implying that they were conspecific (though obviously Linnaeus must have considered them to be closely related to his type specimen).

Following Lambert, H. L. Clark (1911, p. 594) similarly dismissed Lovén's inconvenient conclusion that *Echinus rosaceus* Linnaeus is not the West Indian species it is commonly supposed to be and which is generally credited to Linnaeus, because, Clark says, " Lovén admits there is no authentic type specimen of *rosaceus* ". In face of Lovén's photograph of the authentic type specimen (for the identity of which he provides the perfectly convincing argument given at the beginning of this proposal), H. L. Clark's statement suggests that he had not read Lovén's work properly, particularly since he reiterates Lambert's comment that *rosaceus* Linnaeus was obviously a compound of several distinct species.

Mortensen too (1948, p. 78) followed Clark and Lambert in refusing to accept Lovén's arguments concerning *Clypeaster rosaceus*. [However, he succeeded incidentally in proving Lovén wrong as regards Linnaeus' second *Clypeaster* species, namely *Echinus reticulatus* Linnaeus, 1758, p. 666, by giving a photograph (1948, pl. xviii, fig. 1) of a specimen from the old royal collection under the name of *Clypeaster reticulatus*, which specimen he presumably found to be conspecific with his Indo-Pacific material of *reticulatus*, though he did not stress this in the text. Linnaeus gave the locality of *reticulatus* as " O. Americano ". Certainly the specimen figured by Mortensen resembles closely Gualtieri's figure quoted by Linnaeus for comparison with *reticulatus* (though I must say that it looks more " punctate " than " reticulate ", these being almost the only differentiating features included by Linnaeus in his abbreviated diagnoses of the two species in 1758). One cannot help speculating whether Mortensen refrained from giving a photograph of the corresponding specimen of *rosaceus* in the royal collection because it disagreed with the present-day conception of the species.]

In face of the existence of a specimen which is almost certainly the type of Linnaeus' *Echinus rosaceus* but which belongs to the species now known as *Clypeaster humilis*, it seems impossible to go on crediting Linnaeus as the author of the West Indian *Clypeaster rosaceus*. It is unthinkable that the name *rosaceus* should be transferred to the Indo-Pacific species and *humilis* (Leske) reduced to the synonymy of it—as should be done under the rules.

In order to preserve the names *Clypeaster rosaceus* and *C. humilis* in their accustomed usages it is desirable that *Echinus rosaceus* Linnaeus, 1758, 1764 and 1767 (also Gmelin, 1788) should be suppressed and *Clypeaster rosaceus* Lamarck, 1801, validated as the type species of *Clypeaster* Lamarck. At that date, Lamarck (1801, p. 349) gave only two references under the heading of *C. rosaceus*, one to Klein's fig. A of pl. xvii together with fig. B of pl. xviii and the other to figs. 7 and 8 of pl. 144 in the Encyclopédie Méthodique, the latter being copied from Klein. At the same time it becomes necessary to restrict *Clypeaster humilis* (Leske) to the species probably represented by Klein's figures A and B of pl. xix (1734 and 1778) reproduced as figures 1 and 2 of pl. 145 in the Encyclopédie Méthodique.

A. Agassiz (1872) qualified with exclamation marks his citations to Lamarck's reference to *Clypeaster rosaceus* and to Klein's figures, thus implying that he had personally examined the relevant material. This gives added weight to the identification of Klein's two pairs of figures as representing respectively the two species now known as *C. rosaceus* and *C. humilis*.

It is also desirable that either lectotypes or neotypes of the two should be selected. The best solution to this problem seems to me the designation of Klein's two pairs of figures as representing the lectotypes, though I must admit that the two latter (of *humilis*) are not so satisfactory as the former, since there are other species of *Clypeaster* which are superficially very similar to *C. humilis*.

If this is done, then Klein's pl. xvii, fig. A and pl. xviii, fig. B (1734 and 1778) represent the lectotype of the West Indian *Clypeaster rosaceus* Lamarck, 1801, while figs. A and B of pl. xix represent the lectotype of *Echinanthus humilis* Leske, 1778, now restricted to variety β of Klein and referable to the genus *Clypeaster*. Strictly speaking, the latter should be designated *E. humilis* Leske *in* Klein, 1778, but since Leske's separate " Additamenta " was published in the same year as his complete edition of Klein this qualification seems superfluous.

According to Leske a specimen of variety β, by inference the one represented in Klein's figures, was then in the museum of Trier. Unfortunately the natural history collection of that museum was broken up during the nineteenth century and this specimen cannot now be traced [I am indebted to Dr. Reusch of the Rheinisches Landesmuseum, Trier, for this information].

A further ramification of this problem concerns the generic name *Echinanthus* Leske. Mortensen (1948) attempted to attribute the name to Breynius (1732) but this is inadmissable as Kier (1962, p. 226) has pointed out. Kier goes on to say that as " Leske was the first post-Linnaean author to use *Echinanthus*, the genus must be credited to Leske, and one of the four species he referred to this genus must be considered as its type species. Two of these species, *Echinanthus humilis* and *Echinanthus altus*, can be referred definitely to *Clypeaster*, and a third, *Echinanthus orbiculatus*, to *Pygurus*. Since *Echinanthus* has priority over both these genera, the selecting of one of these three species as the type species of *Echinanthus* would make *Clypeaster* or *Pygurus* a synonym of *Echinanthus*. Such action would create considerable confusion. The fourth species, *Echinanthus ovatus*, has long been considered the type species of *Echinolampas*. However, it is not clear from Leske's figure that his specimen represents the species which is now considered as *Echinolampas ovatus*. Because of this uncertainty, it seems best to restrict *Echinanthus ovatus* to Leske's specimen (now lost), and designate it as the type species of *Echinanthus*. By this action the genera *Pygurus*, *Clypeaster* and *Echinolampas* remain valid. Leske's figure of *E. ovatus* is so poor that it is not possible to know most of the generic characters of the species, and because of this the genus *Echinanthus* is referred to incertae sedis."

However, all this is in vain since in 1911 H. L. Clark (p. 595) had reviewed this same problem in similar fashion, but his process of elimination had the end result that " *orbiculatus* alone is left to be the type of *Echinanthus* " (*humilis* and *altus* having been referred by Lamarck to *Clypeaster* and *ovatus* by Gray to *Echinolampas*). He goes on to note, like Kier, that *orbiculatus* is generally agreed to be a *Pygurus*, which name dates from L. Agassiz 1839 and thus becomes a synonym of *Echinanthus*.

Mortensen (1948) includes both *Echinanthus* and *Pygurus* separately in his Cassiduloid volume, declaring that the former should be a " nomen conservandum " with Breynius as author, and refusing to accept H. L. Clark's solution; as type species he gives *Cassidulus scutella* Lamarck, 1816.

In view of these varied dispositions for *Echinanthus* and the undesirability of leaving it as " incertae sedis " where it is a potential threat to the validity of the subsequently established *Clypeaster*, *Pygurus* and *Echinolampas*, I think the best solution would be for the Commission to suppress the name altogether.

As for the type species of *Echinolampas*, although the specific name *oviformis* Gmelin was in general use for it until the beginning of this century, since Döderlein revived the name *ovata* Leske in 1906 that name had been universally adopted by echinoid specialists until 1962 and a reversion to *oviformis*, such as Kier proposes, seems to me very undesirable. It could possibly be avoided by selecting Klein's figures c and d of plate xx as lectotype, these figures being quite reasonable in my view and, since there are very few common recent cassiduloids with the periproct inframarginal to choose from, I consider it a safe assumption that they do represent the type species of *Echinolampas*, as Döderlein, Mortensen and others have likewise assumed. [However, I must admit that the posterior aboral groove shown is peculiar, though probably an abnormality.] There is a close resemblance to the specimens figured under the name *Echinolampas ovata* by Mortensen (1948, pl. iv, figs. 1–8). Nevertheless, in face of Kier's opinion that Klein's figures are poor, it might be better to select a neotype from among extant specimens. Accordingly I propose to designate the specimen from Port Hedland (Western Australia), shown in Mortensen's plate iv figures 3–5, as neotype of *Echinolampas ovata*. This specimen is in the Copenhagen Museum.

The International Commission is therefore asked:

(1) to use its plenary powers to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy:

- (a) the specific name *rosaceus* Linnaeus, 1758, 1764, 1767 and Gmelin, 1788, as published in the binomen *Echinus rosaceus*;
- (b) the generic name *Echinanthus* Leske, 1778;

(2) to place the following generic names on the Official List of Generic Names in Zoology:

- (a) *Clypeaster* Lamarck, 1801 (p. 349) (gender: masculine), type-species, by monotypy, *Clypeaster rosaceus* Lamarck, 1801;
- (b) *Pygurus* L. Agassiz, 1839 (p. 68) (gender: masculine), type-species, by designation by Savin, 1902 (p. 271), *Echinolampas montmollini* L. Agassiz, 1836;
- (c) *Echinolampas* Gray, 1825 (p. 429) (gender: masculine), type-species, by designation by Pomel, 1883 (p. 62), *Echinus oviformis* Gmelin, 1788;

(3) to place the following specific names on the Official List of Specific Names in Zoology:

- (a) *rosaceus* Lamarck, 1801 (p. 349), as published in the binomen *Clypeaster rosaceus*, of which the lectotype now selected is represented by plate xvii fig. A and plate xviii fig. B in Klein's *Dispositio Naturalis Echinodermatum*, 1734 (type-species of *Clypeaster* Lamarck, 1801);
- (b) *humilis* Leske, 1778 (p. 185), as published in the binomen *Echinanthus humilis*, of which the lectotype now selected is represented by Klein's plate xix figs. A and B, 1734;

(c) *montmollini* L. Agassiz, 1836 (p. 134), as published in the binomen *Echinolampas montmollini* (type-species of *Pygurus* L. Agassiz, 1839);

(d) *ovatus* Leske, 1778 (p. 191), as published in the binomen *Echinanthus ovatus*, as interpreted by the neotype designated above, [the oldest available name for the type-species of *Echinolampas* Gray, 1825].

(4) to place the specific name *rosaceus* Linnaeus, 1758, 1764, 1767 and Gmelin, 1788 (p. 3186), as published in the binomen *Echinus rosaceus*, (as suppressed under the plenary powers in (1)(a) above) on the Official Index of Rejected and Invalid Specific Names in Zoology;

(5) to place the generic name *Echinanthus* Leske, 1778 (p. 185), (suppressed under the plenary powers in (1)(b) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

Since the localities of Klein's specimens are unknown I propose to designate Montego Bay, Jamaica, as restricted type locality for *Clypeaster rosaceus* and Suez, Red Sea, as type locality for *C. humilis*, appropriate specimens from these localities being in the British Museum collections.

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NANA SCHUMACHER, 1817 (GASTROPODA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS Z.N.(S.) 1622

By A. Myra Keen (*Stanford University, California, U.S.A.*)

The generic name *Nana* was proposed by C. F. Schumacher, 1817 (*Essai nouv. Syst. Habitations Vers test.* : 225), with two sections. The type of the first was cited as *N. maroccana*—the *Buccina maroccana* of Chemnitz. 11, p. 285, pl. 210, figs. 2082–2083. Of Section B the type was *N. neritea* or the *Buccinum neriteum* Linnaeus as figured by Born, 1780; a synonym was cited as " *Fabula nana* Chemn. 5, p. 72, Tab. 166, f. 1062 no. 1–3."

2. Subsequent authors have pointed out that as proposed this is a composite genus. The type of the first section is a *Melanopsis* (a genus credited to Férussac, 1807, by authors), in the family Melanopsidae, markedly different from the type of the second section, which represents the family Nassariidae. The latter group has variously been called *Cyclops* Montfort, 1810 (*non* Müller, 1776, Crustacea); *Cyclope* Risso, 1826; *Cyclonassa* Swainson, 1840, and *Neritula* H. and A. Adams, 1853 (ed. Plancus, 1739). The name *Nana* has not been overlooked, for it has been mentioned consistently by authors as a synonym. No one has cited a type for it or has adopted it as a valid name for a taxon. The fact that the type-species is fixed by absolute tautonymy seems not to have been noticed. Although the Chemnitz names are non-binominal (Opinion 184), Schumacher's citation of the binomen *Fabula nana* in the synonymy fixes the type under Article 68d as *Buccinum neriteum* Linnaeus, 1758. This would make *Nana* Schumacher, 1817, take precedence over the currently used *Cyclope* Risso, 1826.

3. The type-species of *Cyclope* Risso seems not to have been correctly cited. It is usually stated to be *Buccinum neriteum* Linnaeus, 1758, a binomen not mentioned by Risso. If *Cyclope* is accepted as an innovation by Risso (who did not credit it to himself but said he had taken the name from a museum label), three nominal species comprise the original list: *C. neritoidea*, *C. donavania* [sic], and *C. pellucida* (A. Risso, *Hist. nat. princip. Prod. Europ. mérid.* **4** : 170, 271–272). The *C. neritoidea* may be recognized, by cited figures, as a junior synonym of *Buccinum neriteum* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 738), but no one, as far as I can determine, has indicated this, as required under Article 69a (iv) of the Code. Some authors have interpreted Risso usage as not an innovation but an inadvertent error for *Cyclops* Montfort. Were this the case, it would not be available under Article 32c of the Code.

4. In the interests of current usage and nomenclatural stability, the Commission is asked:

(a) to use its plenary powers to suppress the generic name *Nana* Schumacher, 1817, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(b) to place the generic name *Cyclope* Risso, 1826 (gender : feminine), type-species, here designated, *Cyclope neritoidea* Risso, 1826, on the Official List of Generic Names in Zoology;

(c) to place the specific name *neriteum* Linnaeus, 1758, as published in the binomen *Buccinum neriteum*, on the Official List of Specific Names in Zoology;

(d) to place the generic name *Nana* Schumacher, 1817 (suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

SPHALEROSOPHIS JAN, 1865 (REPTILIA): PROPOSED PRESERVATION UNDER THE PLENARY POWERS. Z.N.(S.) 1627

By Eugen Kramer (*Naturhistorisches Museum, Basel*)

The object of the present application is to ask the International Commission to use the plenary powers to prevent the better known generic name *Sphalerosophis* (in its correct spelling) from disappearing as a junior subjective synonym of the generic name *Chilolepis* Fitzinger, 1843.

1. Marx, 1959 (*Fieldiana*, Zoology **38**) published a " Review of the Colubrid Snake Genus *Spalerosophis*." This taxon, created by Jan, 1865 (*in* de Filippi, Note di un viaggio in Persia nel 1862), appeared in the original description under two different spellings: *Spalerosophis* and *Sphalerosophis*. There is no doubt, that the first one is a misprint, since the latin term is derived from the greek adjective " σφαλερὸς " and the letter φ is to be correctly translitterated by ph. Following the rules of the Code (Art. 19, 32 (ii) and 33 (i)) the name in question is to be corrected to *Sphalerosophis* whereas the other spelling has no standing in nomenclature.

2. Unfortunately this has an older synonym in *Chilolepis* Fitzinger, 1843, a taxon that has not been used other than in a synonymic list since its first publication (Cope, 1886, *Proc. Amer. phil. Soc.* **23**; Boulenger, 1893, *Cat. Snakes B.M;* Romer, 1956, *The Osteology of the Reptiles*).

3. Schmidt, 1930 (*Field Mus. Nat. Hist.*, Zool. **17**) resurrected the name *Spalerosophis*—using the incorrect spelling—and from this date the taxon appears frequently in the literature.

4. I agree with Marx (1959) in retaining the junior synonym and rejecting the name *Chilolepis*. In the interest of stability one might even go further and retain the incorrect spelling. But I think it better to write it correctly to maintain the author's intention and derivation, since the change effects no confusion.

5. In the application hereby submitted the International Commission is asked:

(1) to use its plenary powers to suppress the generic name *Chilolepis* Fitzinger, 1843, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Sphalerosophis* Jan, 1865, (gender : masculine), type-species, by monotypy, *Sphalerosophis microlepis* Jan, 1865, on the Official List of Generic Names in Zoology;

(3) to place the specific name *microlepis*, Jan, 1865, as published in the binomen *Sphalerosophis microlepis* (type-species of *Sphalerosophis*) on the Official List of Specific Names in Zoology;

(4) to place the generic name *Chilolepis* Fitzinger, 1843 (as suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

Bull. zool. Nomencl., Vol. 21, Part 4. October 1964.

ASTHRAEUS LAPORTE AND GORY, 1837 (INSECTA, COLEOPTERA): PROPOSED EMENDATION TO *ASTRAEUS*. Z.N.(S.) 1628

By S. Barker (*Department of Zoology, University of Adelaide, Adelaide, South Australia*)

The aim of this application is to stabilize a name in the Buprestidae in accordance with generally established usage. The particulars are as follows;

2. Laporte and Gory established the generic name *Asthraeus* (gender, masculine) with one species originally included, *Asthraeus flavopictus* (1837, *Monogr. Bupr.* **1** : 1, pl. 1, fig. 1).

3. The original spelling of the generic name was used by all authors until 1869 when Gemminger and de Harold (1869, *Cat. Coleopt.* **5** : 1380) used *Astraeus*. This was clearly a correction of an incorrect transliteration from the Greek word Ἀστραιος, a Greek star God, spelt always with a τ and correctly transliterated into Latin with a t. It does not belong to the class of words spelt in Greek with a θ and optionally transliterated into Latin with a th or a t. The spelling of Gemminger and de Harold has been followed by all subsequent authors. The relevant biography is listed below: Laporte and Gory (1837, *Monogr. Bupr.* **1** : 1, pl. 1, fig. 1); Imhoff (1856, *Einf. Stud. Koll.* **2** : 46); Lacordaire (1857, *Gen. Coleopt.* **4** : 43); Saunders (1868, *Trans. ent. Soc. Lond.* **1868** : 10, pl. 1, fig. 12); Gemminger and de Harold (1869, *Cat. Coleopt.* **5** : 1380); Saunders (1871, *Cat. Bupr.*: 43); Masters (1871, *Cat. Coleopt. Austral.*: 124); Macleay (1872, *Trans. ent. Soc. N.S.W.* **2** : 239, 240); Kerremans (1885, *Ann. Soc. ent. Belg.* **29** : 136); Van de Poll (1886, *Notes Leyden Mus.* **8** : 176, 177); Masters (1886, *Proc. Linn. Soc. N.S.W.* **11** : 71); Van de Poll (1889, *Tjschr. v. Ent.* **32** : 79–110, pls. 2–3, figs. 1–19); Blackburn (1889, *Proc. Linn. Soc. N.S.W.* (2) **4** : 1256–1259); Blackburn (1891, *Trans. Roy. Soc. S. Aust.* **15** : 211, 212); Van de Poll (1892, *Tijdschr. v. Ent.* **36** : 67, 68); Kerremans (1892, *Mem. Soc. ent. Belg.* **1** : 101); Kerremans (1900, *Ann. Soc. ent. Belg.* **44** : 295); Kerremans (1903, *Gen. Insect. Col. Serricornia*, Fam. Bupr.: 148); Favel (1904, *Rev. d'Ent.* **23** : 116); Carter (1925, *Proc. Linn. Soc. N.S.W.* (2) **50** : 229, fig. 1); Obenberger (1928, *Arch. Naturgesch.* **92** : 204, 205); Carter (1929, *Aust. Zool.* **5** : 270, 282, pl. 33, fig. 43); Obenberger (1930, *Cat. Coleopt.* **12**, Bupr. **2** : 365–367); Obenberger (1936, Festschr. 60 Geburtst. Embrik Strand, Riga **1** : 133).

4. I know of no author who has used *Asthraeus* in its original form since 1869. That *Astraeus* is not a new name but an emendation is shown by Gemminger and de Harold who cited Laporte and Gory as its authors. This has also been followed by all subsequent authors.

5. Accordingly, to preserve current usage, I request the Commission to validate the emendation of *Asthraeus* Laporte and Gory, 1837, to *Astraeus* Laporte and Gory, 1837.

6. The alternative to this is to let the provisions of the Code take their normal course. This would lead to instability, since *Asthraeus* is either a *nomen oblitum* or it has retained its validity through continued use in the invalid

form *Astraeus.* Different authors will take different views of this and there will be no uniformity.

7. In accordance with the above, the International Commission on Zoological Nomenclature is asked:

(1) to use its plenary powers to validate the emendation to *Astraeus* of the generic name *Asthraeus* Laporte and Gory, 1837;

(2) to place the generic name *Astraeus* Laporte and Gory, 1837 (gender: masculine), type-species, by monotypy, *Astraeus flavopictus* Laporte and Gory, 1837, on the Official List of Generic Names in Zoology;

(3) to place the specific name *flavopictus* Laporte and Gory, 1837, as published in the binomen *Asthraeus flavopictus* (type-species of *Astraeus* Laporte and Gory, 1837) on the Official List of Specific Names in Zoology.

AN APPEAL TO REJECT THE GENERIC NAME *PSOMELES* IN FAVOR OF *RHYNCOGONUS* (CLASS INSECTA, ORDER COLEOPTERA, FAMILY CURCULIONIDAE). Z.N.(S.) 1629

By Elwood C. Zimmerman (*Bishop Museum, Honolulu*)

The purpose of this application is to ask the International Commission on Zoological Nomenclature to place on the Official List of Generic Names in Zoology the well known, widely used, firmly founded name *Rhyncogonus* Sharp, 1885, and to place on the Official Index of Rejected and Invalid Generic Names in Zoology the mostly forgotten, inadequately substantiated name *Psomeles* Guérin-Méneville, 1838. The facts are as follows:

1. *Psomeles* was established by Guérin-Méneville in 1838 (*in* L. I. Duperrey, *Voyage de la Coquille*, Zool. **2** (2) Div. 1 : 120) for one species, *luctuosus* Guérin-Méneville, from Tahiti. In spite of search, the type material cannot be located, and it appears to be lost. Evidently no taxonomist has reported upon an examination of any specimens of the species since it was described. Schoenherr listed the genus in his monumental *Genera et Species Curculionidum* . . ., 7 (2) : 255, 1843, but he stated that it was unknown to him. Fairmaire, who published the first essay including the Coleoptera of Tahiti in 1849 (*Revue et Magasin de Zoologie*, pp. 508–509) published abstracts from the original descriptions, but he did not see the species. Lacordaire, in his comprehensive *Genera des Coléoptères* **7** : 154, 1863, considered the genus, but he could not place it in his generic revision, because he had not seen it. Sir Guy Marshall tried to find the type material without success, and he concluded that " for the present the only course is to include *Psomeles* as an unknown genus of Rhyncogonini, with a single species *luctuosus* Guér." (*The Otiorrhynchine Curculionidae of the Tribe Celeuthetini*, p. 7, 1956, British Mus. (Nat. Hist.)).

Thus, it is evident that the greatest authorities on the Curculionidae who have considered the problem of *Psomeles* during more than 100 years have been unable to establish the taxonomic status of *Psomeles luctuosus*. It also appears that the type material has been lost, and there is now no way to be absolutely certain of the identity of the species.

2. The genus *Rhyncogonus* Sharp, 1885 (*Sci. Trans. Royal Dublin Soc.* (II) **3** : 176), has been in constant use since its description. It was erected for two Hawaiian species, and *Rhyncogonus blackburni* Sharp, 1885 : 177, is its type-species by original designation. *Rhyncogonus* is a characteristic genus of many islands of Polynesia east of Samoa. It is well known, the name is widespread in literature, there is no taxonomic confusion concerning it, it has no synonyms, and it has been applied to about 100 species.

3. After considering the original description in the light of my personal experience with the curculionid fauna of Tahiti, it appears that the description of *Psomeles luctuosus* applies to an unknown species of *Rhyncogonus*. Strictly applied, therefore, the long-forgotten, enigmatic name *Psomeles* would replace the well known, widely used name *Rhyncogonus*. Several species of *Rhyncogonus* have been described from Tahiti, but the specific description of *Psomeles*

luctuosus applies to none of them, and *luctuosus* remains an unrecognized species.

4. It is concluded that much confusion would be created by the resurrection of the long-forgotten generic name *Psomeles*, and that no useful purpose can be served by such resurrection. The Commission is, therefore, requested to consider this case, and the applicant recommends that the Commission should:

(1) use its plenary powers to suppress the generic name *Psomeles* Guérin-Méneville, 1838 for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) place the generic name *Rhyncogonus* Sharp, 1885 (gender : masculine), type-species, by original designation, *Rhyncogonus blackburni* Sharp, 1885, on the Official List of Generic Names in Zoology;

(3) place the specific name *blackburni* Sharp, 1885, as published in the binomen *Rhyncogonus blackburni* (type-species of *Rhyncogonus* Sharp, 1885) on the Official List of Specific Names in Zoology;

(4) place the generic name *Psomeles* Guérin-Méneville, 1838 (as suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

AMBALODUS BRANSON AND MEHL, 1933 or *AMBOLODUS* BRANSON AND MEHL, 1934(CONODONTS): PROPOSED REJECTION OF *AMBOLODUS* UNDER THE PLENARY POWERS. Z.N.(S.) 1633

By Michael C. Mound and Raymond L. Ethington (*California Research Corporation, La Habra, California, and University of Missouri, Columbia*)

The purpose of the present proposal is to stabilize the spelling and application of the conodont generic name *Ambalodus* in the sense of the original description. Since the naming of *Ambalodus* in 1933, seven species of this genus have been described from Ordovician rocks in the United States, England, Sweden, and Russia.

2. The genus *Ambalodus* was named and described (1933, *University Missouri Studies* **8** (2) : 127) in the first part of a four-part volume dedicated entirely to conodont studies and the type-species, *Ambalodus triangularis*, was described on the following page (p. 128). The caption to Plate 10, figs. 35–37, also refers to *Ambalodus triangularis* (*op. cit.*, p. 165). Thus, there is no variation in the spelling of *Ambalodus* as it appears in the original work on the three pages cited above and the possibility of a misprint or typographical error repeated three times in succession appears remote. Yet, in 1934 along with the final number of the Conodont Studies (Branson, Mehl, and Branson, 1934, *University Missouri Studies* **8** (4)) an errata sheet was prepared. On this list, the name *Ambalodus* is changed to *Ambolodus*, but no explanation is given for the change. Moreover, in the " Index of Genera and Species " (Branson, Mehl, and Branson, 1934, p. 345) the genus in question is listed as " *Ambolodus*."

3. In 1934, Huddle (p. 35) lists *Amabalodus* in a discussion of the Family Polygnathidae Ulrich and Bassler, 1926; the spelling, *Amabalodus*, was a typographical error (personal communication). Graves and Ellison (1941, *University of Missouri School of Mines and Metallurgy, Bull.*: 5, 7, 25) and Imbt (1941, in *Stratigraphic Type Oil Fields* : 148) use the name *Ambalodus*, apparently unaware of the change in spelling listed in the aforementioned errata sheet of Branson, Mehl and Branson. In 1944 (*University Missouri Studies* **19** : 95), E. B. Branson, the senior author of the papers mentioned above (*University Missouri Studies* **8**), lists *Ambalodus* rather than *Ambolodus*, in disregard of the change previously suggested by him and his collaborators (1934, *University Missouri Studies* **8**, accompanying errata sheet). Branson and Mehl, 1944 (in *Index Fossils of North America* : 237), describe *Ambolodus*; but on p. 239 the caption to Plate 93 lists *Ambalodus triangularis*, making it unclear as to which spelling is intended. Ellison (1946, *Am. Assoc. Petroleum Geol.* **30** : 94, 107), cites Branson and Mehl's (1944, in *Index Fossils of North America* : 237) spelling of *Ambolodus*, without mention of the unresolved ambiguity in the latter work, as Ellison's reference was merely a generic register. Fay (1952, *University of Kansas Paleont. Contrib.*, art. 3, : 14, 49, 205) refers to *Ambalodus*, noting, however, the references to *Ambolodus* by Branson and Mehl, 1944 and Ellison, 1946 (*op. cit*), but elected to use *Ambalodus* as a major heading in lieu of *Ambolodus*. In 1953, Rhodes (*Phil. Trans. Roy. Soc. London* (B.) (647) **237** : 270, 271,

272, 273, 274, 278, 279–281, 328, 329, 332) consistently refers five species, three newly named, and one new subspecies to *Ambolodus*, and credits the generic name *Ambolodus* to Branson and Mehl, 1933, p. 127 (Rhodes, 1953, *op. cit.*, p. 278), although as mentioned above the actual spelling used by the latter authors was *Ambalodus*. In 1955 (*Quart. Jour. Geol. Soc. London* **111** : 118, 119, 120, 121, 122, 139), Rhodes refers to *Ambolodus triangularis* and includes in his synonymy references to *Ambolodus triangularis* of Branson and Mehl, 1933; Graves and Ellison, 1941; Imbt, 1941; Branson, 1944; all of whom actually cite *Ambalodus* rather than *Ambolodus*. Lindström (1955, *Geol. För. Förh.* **76** : 533, 541, 550, 612) refers to an unnamed species of *Ambolodus*, and again in 1957 (*Geol. För. Förh.* **79** : 168), Lindström refers to *Ambolodus*. Rhodes and Wingard (1957, *Jour. Paleontology* **31** : 449) refer to *Ambolodus* in their discussion of fibrous conodonts. Glenister (1957, *Jour. Paleontology* **31** : 715, 718, 722) refers to *Ambalodus triangularis*, but erroneously credits Rhodes (1953, *op. cit.*) with spelling it as *Ambalodus*. Fay (1958, *Oklahoma Geol. Notes* **18** : 116) refers to the generic name of *Ambolodus* in his generic and subgeneric key, a reversal of his former usage of *Ambalodus* (1952, *op. cit.*, p. 14, 49, 205) in the earlier generic key; no explanation for the name change is included in the later work. Stone and Furnish (1959, *Jour. Paleontology*, **33** : 217–220) and Ethington (1959, *Jour. Paleontology* **33** : 263–265, 267, 269) similarly refer to *Ambalodus triangularis* and erroneously credit Rhodes (1953, 1955, *op. cit.*) with the *Ambalodus* spelling. Lindström (1959, *Micropaleontology* **5** (4) : 428, 429, 431, 434–436) refers to *Ambalodus elegans* Rhodes and lists the appropriate references to *Ambolodus* in his synonymy; Lindström does the same for *Ambalodus pulcher* Rhodes. In the synonymy for *Ambalodus triangularis* (*op. cit.*, p. 35), however, there is no indication of the *Ambolodus triangularis* spelling as used by Rhodes (1953, 1955, *op. cit.*). Sweet, Turco, Warner, and Wilkie (1959, *Jour. Paleontology* **33** : 1029, 1035, 1036, 1038–1040) refer to *Ambalodus elegans* and *Ambalodus triangularis* but do not record the variance in spelling in the synonymies on p. 1040. Lindström (1960, *Internat. Geol. Cong., 21st Sess.*, Rept. (7) : 88, 89, 91, 92, 93, 94, 95) uses the spelling *Ambalodus* following citations from his previously published paper (1959, *op. cit.*). Ash (1961, *Micropaleontology* **7** : 229) lists three species and one subspecies of *Ambalodus*, but all of the listed species were originally described as *Ambolodus*. Bergström (1962, *Arkiv Mineralogi och Geologi*, **3** : 1, 10–15, 18–21, 23–29, 64) refers to *Ambalodus triangularis* and names a new subspecies, *Ambalodus triangularis erraticus*. In Bergström's generic description, he reviews briefly the history of *Ambalodus* and *Ambolodus* and concludes that *Ambalodus* is the valid name. Ellison (1962, *University Texas Pub.* 6210 : 17, 97, 125) in his generic index (p. 97, 125) notes that *Ambalodus* is an " invalid spelling " of *Ambolodus*, refers the reader to the latter genus, but offers no explanation for the change. In the annotated bibliography portion of Ellison's paper, he mentions that *Ambalodus* [*sic*] is a new generic name proposed by Branson and Mehl (p. 17, *op. cit.*) but does not refer to *Ambolodus*. Hass (1962, Conodonts, in *Treatise on Invertebrate Paleontology* **W** : W58, W60, W250) refers to *Ambalodus* and includes no reference at all to *Ambolodus*. Sergeeva (1962, *Doklady Akad. Nauk. SSSR* **146** (6) : 1393, 1395) refers three new species (*nomina nuda*) to *Ambalodus* but does not refer to

Ambolodus; in 1963 (*Paleontologicheskiy Zhurnal* (2) : 95, 105, 106), Sergeeva again refers to *Ambalodus*, but not *Ambolodus*, and validates *Ambalodus planus*; later in 1963 (*Vestnik Leningradskogo Universiteta* 12 : 74, 75) Sergeeva once more refers to *Ambalodus*, without mentioning *Ambolodus*. Lindström (1963, *Sedimentology* **2** : 252) refers an unnamed new species to *Ambalodus* without mention of *Ambolodus*.

4. In the above summary of the history of citation of the generic taxon *Ambalodus* (or *Ambolodus*), seventeen papers have referred to *Ambalodus* in lieu of *Ambolodus*; nine papers have preferred *Ambolodus* to *Ambalodus*; the choice of the original publication (Branson and Mehl, 1933, *op. cit.*) is unclear; one paper (Ellison, 1962, *op. cit.*) declares *Ambolodus* valid and *Ambalodus* as invalid spelling; and one paper (Bergström, 1962, *op. cit.*) declares *Ambalodus* valid and *Ambolodus* to be invalid. The *Zoological Record* (1936, **72** (6) Vermes, p. 133) records *Ambalodus* as the only recognized spelling.

Bergström (1962, p. 25, *op. cit.*) stated: " . . . the original name of the genus was *Ambalodus*. This name is used throughout in Branson and Mehl's paper of 1933. Because no remark was made in this publication that *Ambalodus* was considered a misprint by the authors and should be changed to *Ambolodus*, it is evident that *Ambalodus* has priority over *Ambolodus* (Internat. Rules Zool. Nomenclature, art. 25). Yet, in 1934, Branson and Mehl published a list of errata together with the last part of their ' Conodont Studies ', and in this list the name of the genus was changed to *Ambolodus*. However, according to Internat. Rules Zool. Nomenclature, art 19, such a change of an earlier published generic name is invalid. Since *Ambalodus* is not a homonym, it can thus be stated that the only valid name of the genus is *Ambalodus*."

5. Bergström is correct in assuming that *Ambalodus* has priority over *Ambolodus* as the former name appears in the original publication and no errata sheet accompanies it (Branson and Mehl, *University Missouri Studies* **8** (2) : 127). Article 19, however, to which Bergström refers, states that the original orthography of a name is to be preserved unless an error of transcription (transliteration), a *lapsus calami*, or a typographical error is evident. Article 19 of the new Code of Nomenclature (1961, XV Internat. Congress) states that: " In the meaning of the Code, an emendation, whether justified or unjustified, is an available name, but an incorrect spelling, whether original or subsequent, has no standing in nomenclature and is not an available name (Arts. 32c, 33)."

Art. 32(a) (ii) states: " The original spelling of a name is to be retained as the ' correct original spelling ', unless (ii) there is in the original publication clear evidence of an inadvertent error, such as a *lapsus calami*, or a copyist's or printer's error (incorrect transliteration, improper latinization, and use of an inappropriate connecting vowel are not to be considered inadvertent errors). . . ."

6. It is not now possible to purchase a copy of volume 8 of the University of Missouri Studies from the University of Missouri and receive the list of errata on which the name change of *Ambalodus* to *Ambolodus* appeared. Moreover, the original four numbers of volume 8 which were received in the University of California at Los Angeles Library between August 2, 1933 and December 13, 1934 were not accompanied by an errata sheet. Therefore, there is some question as to the availability, and hence, the validity of such an errata sheet.

Few persons concerned with conodont studies have seen or possess the list of errata, although its existence is generally known. On the other hand, the entire publication itself has been available since 1933 and 1934 and still is obtainable. Part I of the Studies (*op. cit.*) has just recently become available. Apparently a limited supply of errata sheets was once available and is now exhausted.

7. The errata sheet merely states that on p. 127, *Ambalodus* should be *Ambolodus*. There is no clear evidence in *the original publication* (cf. Art. 32(a)(ii) above) of any " inadvertent error." Nowhere is any valid *reason* for the change given either in the original publication or in any subsequent publication by *any* author. The status of availability of the errata sheet also remains in doubt. Notwithstanding the possibility that the errata sheet may prove to be considered part of the original publication in terms of the purposes of taxonomic validity, the question of justification of the proposed change remains open to contention.

8. Inasmuch as the Code of Zoological Nomenclature (Art. 56a) provides that a difference between the generic names of even one letter prevents homonymy, *Ambalodus* and *Ambolodus* must be considered as two distinct names. It is altogether likely that future taxonomic studies of conodonts will involve *Ambalodus* (or *Ambolodus*) and latitude for free choice between these particular names must be eliminated to insure taxonomic stability. We therefore propose that the Commission use the plenary powers for a decision as to the validity of one or the other of these two names, as follows:

(a) inasmuch as the relative availability and validity of errata sheet ostensibly supplied with no. 4 of volume 8 of Branson and Mehl's series on conodonts (*op. cit.*) is in question, and

(b) the change from *Ambalodus* to *Ambolodus* may not have been a justifiable one in the sense of the code (Art. 33);

(c) the world-wide occurrence of *Ambalodus* in rocks of Ordovician age demands a uniform taxonomic usage for this common genus;

(d) the original publication, number two of a series of four, in which the genus was described and the name coined, was in circulation nearly sixteen months before the final number of the series, number four of the series of four, which supposedly was accompanied by the errata sheet, and

(e) the majority of workers, as seen in the historical outline above, use *Ambalodus* in lieu of *Ambolodus*, we therefore suggest in view of all the evidence that the International Commission should:

(1) use its plenary powers insofar as is necessary to rule that *Ambolodus* is an unjustified emendation of *Ambalodus* Branson & Mehl, 1933;

(2) place *Ambalodus* Branson & Mehl, 1933 (gender; masculine), type-species, by original designation, *Ambalodus triangularis* Branson & Mehl, 1933, on the Official List of Generic Names in Zoology;

(3) place the specific name *triangularis*, Branson & Mehl, 1933, as published in the binomen *Ambalodus triangularis* (type-species of *Ambalodus* Branson & Mehl, 1933) on the Official List of Specific Names in Zoology;

(4) place the generic name *Ambolodus* Branson & Mehl, 1934? (an unjustified emendation of *Ambalodus* Branson & Mehl, 1933) on the Official Index of Rejected and Invalid Generic Names in Zoology.

CHONETES MESOLOBUS NORWOOD & PRATTEN, 1854 (BRACHIOPODA, ARTICULATA): DESIGNATION OF NEOTYPE AND PROPOSED ADDITION TO THE OFFICIAL LIST. Z.N.(S.) 1635

By R. D. Hoare (*Dept. of Geology, Bowling Green State University, Ohio, U.S.A.*)

The purpose of this application is to ask the International Commission on Zoological Nomenclature to place on the Official List of Specific Names the name of the Carboniferous (Pennsylvanian) brachiopod *Mesolobus mesolobus* (Norwood & Pratten), 1854, as interpreted by a neotype specimen. This genus and species is an important element in the Lower and Middle Pennsylvanian faunas of North America and in other regions of the world and assumes stratigraphic importance in delineating group and subgroup divisions in North America. Since the original specimens have been found missing and a misinterpretation of external ornamentation by the original authors seems likely, it is necessary to select a neotype to stabilize this species to avoid further taxonomic confusion. The original designation of a type-species for the genus *Mesolobus* Dunbar & Condra (1932) was *Chonetes mesolobus* Norwood & Pratten (1854) by Dunbar & Condra (1932). This designation was based on the assumption that this species was lirate as described by Norwood & Pratten (1854). Numerous collections by several workers in the regions of Belleville, Illinois, and Charboniere, Missouri, from where Norwood and Pratten made their collections, has shown the non-existence of lirate or striate forms of *Mesolobus* in the Pennsylvanian strata exposed there.

2. Girty (1899, 1903, 1911, 1915) recognized *Chonetes mesolobus* as a striate form and in 1911 proposed two non-striate varieties *decipiens* and *euampygus* of this species. The description of the variety *decipiens* by Girty (1915) states, " This variety has the characteristic configuration of *C. mesolobus*, but the surface is entirely without radiating sculpture — ".

3. In 1932 Dunbar & Condra erected the genus *Mesolobus* with *Chonetes mesolobus* Norwood & Pratten as type-species. They believed this species to have radial striation. In this publication a third non-striate variety, *lioderma*, was erected.

4. Weller & McGehee (1933) note that the portion of the Pennsylvanian section in the Belleville, Illinois, and Charboniere, Missouri, areas is above that portion of the Pennsylvanian System which contains the striated form of *Mesolobus* in Illinois and Missouri and conclude that a misinterpretation of surface sculpture was made by the original authors. Subsequent collecting by several other workers have substantiated this fact. Weller & McGehee (1933) proposed a new specific name for the striate form, *Mesolobus striatus*, and state that the variety *lioderma* Dunbar & Condra (1932) should serve as the type species of *Mesolobus mesolobus* s.s.

5. A careful comparison of the type specimens of Girty (1915), of Dunbar & Condra (1932), fifteen other collections from the Wewoka Formation of Oklahoma, eight collections from various horizons in the Pennsylvanian section exposed in and around Belleville, Illinois, and numerous Pennsylvanian collections from Missouri and Ohio with the illustrations of *Chonetes mesolobus* of

Norwood & Pratten (1854) indicates that the specimens described by Norwood & Pratten are the same as the variety *decipiens* Girty (1911, 1915) and not the strongly lobate and more transverse variety *lioderma* Dunbar & Condra (1932) as thought by Weller & McGehee (1933).

6. It is well known that specimens of the genus *Mesolobus* show a pseudostriation or pseudoliration as the shell becomes exfoliated and the pseudopunctae or internal endospine structures show through. Coating of the shells with magnesium oxide easily proves the presence or lack of the true ornamentation. However, without coating, the appearance is quite deceiving and can be easily misinterpreted.

7. The specimen selected to serve as the neotype is well preserved, uncrushed, with both valves present (pl. 2, figs. 1–3). There is a slight crack running through the beaks and cardinal process areas. The shell is moderately concavo-convex with the greatest width at the hinge-line where the extremities are slightly produced. The lateral margins are nearly parallel rounding smoothly into a slightly sinuate anterior margin. Seven spines border the hinge-line on each side of the pedicle beak, diverging from the hinge-line at an angle of 35°. The shell surfaces are marked only by growth lines which are stronger in development near the anterior margin. Spinule bases are not evident. The specimen is 11·2 mm wide, 7·4 mm long and 3·2 mm thick.

The pedicle valve has a median lobe, not strongly developed, bordered by lateral lobes of approximately the same height as the median lobe and which slope with a uniform convexity to the lateral margins. A small pseudodeltidium is present.

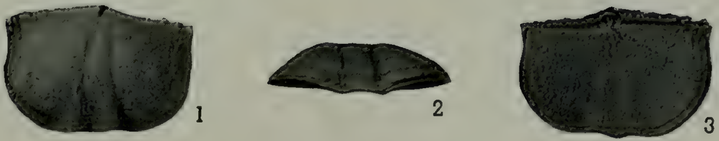
The brachial valve is reflexed. A median sulcus bordered by a pair of low rounded ridges corresponds to the fold on the pedicle valve.

The neotype and 62 associated specimens were collected from the shale between the No. 6 caprock and limestone in the Solar Coal Co. strip pit. SW¼ sec. 4, T. 2 S., R. 7 W., St. Clair County, Illinois, by L. G. Henbest in 1927. This locality will therefore become the type-locality. The specimens are in the repository of the Illinois State Geological Survey, Urbana, Illinois, IGS 34P. The neotype is no. IGS 34P–1 and associated specimens are nos. IGS 34P–2 to 34P–6.

8. In view of the facts set out in the preceding paragraphs, I now request the International Commission on Zoological Nomenclature:

(1) to place the following name on the Official List of Generic Names in Zoology: *Mesolobus* Dunbar & Condra, 1932 (gender: masculine) (type-species by original designation, *Chonetes mesolobus* Norwood & Pratten, 1854);

(2) to place the following name on the Official List of Specific Names in Zoology: *mesolobus* Norwood & Pratten, 1854, as published in the combination *Chonetes mesolobus* as defined by the neotype designated in para 7 above by R. D. Hoare, 1964 (type-species of *Mesolobus* Dunbar & Condra, 1932).



Figs. 1–3 Pedicle, anterior and brachial views of the specimen selected as the neotype of *Mesolobus mesolobus* Norwood & Pratten, x2.5.

ZOOLOGY

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PROCYON BRACHYURUS WIEGMANN, 1837, AND *PROCYON OBSCURUS* WIEGMANN, 1837: PROPOSED SUPPRESSION UNDER THE PLENARY POWERS (MAMMALIA, CARNIVORA). Z.N.(S.) 1640

By Charles A. Long (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, U.S.A.*)

The purpose of this application is to request the International Commission on Zoological Nomenclature to use its plenary powers to suppress the specific names *brachyurus* Wiegmann, 1837, as published in the combination *Procyon brachyurus*, and *obscurus* Wiegmann, 1837, as published in the combination *Procyon obscurus* (*Archiv für Naturgesch.* **3** (1) : 369–370), and concomitantly to ensure that the specific names *Procyon maynardi* Bangs, 1898 (*Proc. Biol. Soc. Washington* **12** : 92, April 30), *Procyon minor* Miller, 1911 (*Proc. Biol. Soc. Washington* **24** : 4, January 28), and *Procyon gloveralleni* Nelson and Goldman, 1930 (*Jour. Mamm.* **11** : 453, November 11) are conserved.

2. In 1950, Goldman (*N. Amer. Fauna* **60** : 1–153, November 7, 1950) revised the raccoons, *Procyon*, of North and Middle America. From the West Indies he listed *Procyon maynardi* Bangs, 1898 (*ibid.*), having its type-locality on New Providence Island, Bahamas; *Procyon minor* Miller, 1911 (*ibid.*), having its type-locality at Pointe-à-Pitre, on Guadeloupe Island, Lesser Antilles; and *Procyon gloveralleni* Nelson and Goldman, 1930 (*ibid.*), having its type-locality on the island of Barbados, Lesser Antilles, West Indies.

3. In Goldman's text (pp. 4–5) and in his bibliography (revised by H. H. T. Jackson), of the above-mentioned publication, references to the early publication by Wiegmann (*loc. cit.*) are given. Following the bibliography-reference (p. 105) an annotation states: " An early review of the genus in which five species are recognized, two of these, *Procyon brachyurus* (p. 369) and *Procyon obscurus* (p. 370) described as new. Neither of these seems to be clearly indentifiable."

4. Hall and Kelson (*The Mammals of North America*, p. 890, 1959) noticed the name *P. brachyurus* Wiegmann and listed it, perhaps as a synonym, under a commonly used name *Procyon minor* Miller, 1911. Furthermore, they quoted the type-locality listed by Wiegmann (" Antillae? "), and they stated that the taxon " may be referable to this species [*P. minor* Miller]. "

5. Hall and Kelson (*loc. cit.*) evidently demurred to apply the rules of priority and replace a commonly used name having a precise type-locality with a long unused name having a problematical type-locality.

6. However, in addition to the description of *P. brachyurus* (Wiegmann, *loc. cit.*) there are also several other passages concerning *brachyurus* Wiegmann mentioned earlier in his publication. In fact, an earlier description of *brachyurus* is written in the introductory part of his publication (*op. cit.*, 354).

Of significance is a passage written concerning *brachyurus* also in the introductory part (p. 355) as follows:

> " Sie stammen aus der Menagerie eines Hrn. Boisset, und haben auf der Etiquette, wahrscheinlich nach Aussage des früheren Besitzers, Westindien

> als Vaterland angegeben. Ist dieser Augabe zu trauen, so hätten wir in die Art den von Hans Sloane erwahnten Waschbaren der Antillen*."

And in the foot-note the following is of great interest:

> " * Hans Sloane (*Nat. Hist. of Jamaica p.* 329) sagt:, *The Raccoons are commonly here in the Mountains and live in hollow fiddle-wood trees, from whence they make paths to seek sugar canes, which is their chief, if not only sustenance.*"—Hierbei is aber nicht aufser Acht zu lassen, dafs Sloane Ray's *Synopsis* citirt dessen Beschreibung theils aus eigener Anschauung, theils aus Markgraf's Beschreibung des *Coati* zusammengewebt ist. Das vorhandsein einer *Procyon*-Art in Westindien ist nach dieser Quelle immer nur problematische."

In summary, the type-specimen was probably obtained in the West Indies, but writings of Sloane and Ray raised doubts as to the occurrence of the raccoon in the West Indies. We now know that *Procyon* occurs in the West Indies, and, therefore, the question-mark may be omitted from Wiegmann's type-locality of *brachyurus* (concerning *P. obscurus*, the type-locality is " in tieferes Dunkel ").

7. There are two possible courses of action that may be followed to obviate the aforementioned problem. First, the name *brachyurus* Wiegmann, 1837, may be considered a senior synonym of *minor* Miller, 1911, or of a name of either of the other two taxa of raccoons inhabiting islands of the West Indies. Wiegmann's type-locality could be, then, considered as the Antilles, or restricted to any of the islands inhabited by raccoons in the West Indies. Such procedure necessitates a nomenclatural change, bringing forth a state of confusion.

8. Another course of action would involve using the plenary powers to suppress the name *brachyurus* Wiegmann, 1837, which action would preserve the stability of the currently used West Indian names, all used for 34 years or longer. The name *obscurus* Wiegmann, 1837, might be also suppressed to ensure future nomenclatural stability, inasmuch as the type-locality is unknown.

9. For the reasons set forth in this application, I now request the International Commission on Zoological Nomenclature:—

(1) to use its plenary powers to suppress the specific names *brachyurus* Wiegmann, 1837, used originally in the combination *Procyon brachyurus*, and *obscurus* Wiegmann, 1837, used originally in the combination *Procyon obscurus*, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the following specific names on the Official List of Specific Names in Zoology:

(a) *maynardi* Bangs, 1898, as published in the combination *Procyon maynardi* [holotype, Mus. Comp. Zool. 7750; type-locality, New Providence Island, Bahamas];

(b) *minor* Miller, 1911, as published in the combination *Procyon minor* [holotype, USNM $\frac{38417;}{15481}$ type-locality at Pointe à Pitre, Guadeloupe Island, Lesser Antilles];

(c) *gloveralleni* Nelson & Goldman, 1930, as published in the combination *Procyon gloveralleni* [holotype, Mus. Comp. Zool.

18591; type-locality, Island of Barbados, Lesser Antilles, West Indies];

(3) to place the following specific names, suppressed under the plenary powers in (1) above, on the Official Index of Rejected and Invalid Specific Names in Zoology:
   (a) *brachyurus* Wiegmann, 1837, as published in the combination *Procyon brachyurus*;
   (b) *obscurus* Wiegmann, 1837, as published in the combination *Procyon obscurus*.

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The Official Organ of

THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 21, Part 5 (pp. 321–400) *26th November*, 1964

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin:*—

(1) Suppression of *Tellina gari* Linnaeus, 1758 (Bivalvia). Z.N.(S.) 1461.

(2) Designation of a neotype for *Lygaeus quadratus* Fabricius, 1798 (Insecta, Hemiptera). Z.N.(S.) 1560.

(3) Suppression of the family name CIMOLESTIDAE Marsh, 1889 (Mammalia). Z.N.(S.) 1630

(4) Validation of *Cnemidophorus septemvittatus* Cope, 1892, (Reptilia). Z.N.(S.) 1634

(5) Validation of four specific names from the work *Ornithologia Britannica*, 1771. Z.N.(S.) 1636

(6) Suppression of Moehring's work *Geslachten der Vogelen*, 1758. Z.N.(S.) 1637

(7) Suppression of *Meles montanus* Richardson, 1829, and *Meles jeffersonii* Harlan, 1825 (Mammalia). Z.N.(S.) 1639

(8) Validation of *Cacatua* Brisson, 1760 (Aves). Z.N.(S.) 1647

(9) Suppression of *Laeomophloeus immundus* Reitter, 1874 (Insecta, Coleoptera). Z.N.(S.) 1649

(10) Validation of *Anthus roseatus* Blyth, 1847 (Aves). Z.N.(S.) 1654

(11) Validation of *Gobius orca* Collett, 1874 (Pisces). Z.N.(S.) 1655

(12) Suppression of *Coluber doliatus* Linnaeus, 1766 (Reptilia). Z.N.(S.) 1656

(13) Validation of *Rhabdosphaera* Haeckel, 1894 (Coccolithiphorida). Z.N.(S.) 1658

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
22 *September* 1964

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature

GARI SCHUMACHER, 1817 : REVISED PROPOSALS CONCERNING THE NAME OF THE TYPE-SPECIES. Z.N.(S.) 1461

(see volume 18 : 90–96, 297–305; 19 : 375–377; 20 : 278)

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

The species problem in the genus Gari

Admittedly, the *Tellina gari* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1**: 674) is a composite species, containing two references, as follows:

" Rumph. mus. t.45 f.D. Tellina gari ". This reference is interpreted as covering the species *Psammotaea serotina* Lamarck, 1818 (Hanley, 1855, *Ipsa Linn. Conch.* : 34) and/or (according to whether synonymy was accepted) *violacea* Lamarck, 1818 [Rehder (*Bull. zool. Nomencl.* **18** : 297), Morrison (*ibid.* : 298), Rosewater (*ibid.* : 303)].

" Argenville conch. t.25 f.I " interpreted as covering the species *Solen vespertinus* Gmelin, 1791 (*in* Linnaeus, *Syst. Nat.* (ed. 13)**1** : 3228), Hanley (1855 : 34), Rehder (*Bull. zool. Nomencl.* **18** : 297), and Morrison (*ibid.* : 298), whereas Rosewater (*ibid.* : 303) considers it unrecognizable.

Under the heading " Tab. 10 fig. 92.93 " Chemnitz (1782—*Conch. Cab.* **6** : 100) gave the first general discussion of the species " Tellina Gari Linnaei ". Then, in two consecutive paragraphs, he mentioned the specimens figured, but there is no indication of any preference of one of the figures above the other, such as postulated by Cox (*Bull. zool. Nomencl.* **18** : 94).

Chemnitz figure 92 is based on two specimens still extant and belonging to *Tellina truncata* Linnaeus, 1758. (Lemche has tried hard to find out which of the two specimens is the one on which the figure is based, but with absolutely no success. The figure seems to be a composite of the two.)

The specimen of Chemnitz' fig. 93 is the same one as used for the drawing by Schumacher (for his *Gari vulgaris*) and was refigured by Lemche and Parker (*Bull. zool. Nomencl.* **19** : 377). It belongs to *Solen amethystus* Wood, 1815 (*Gen. Conch.* : 138). This specimen was proposed by Lemche and Parker as a better neotype for *Tellina gari* than that proposed by Cox.

The neotype proposed for *Tellina gari* Linnaeus by Cox (*Bull. zool. Nomencl.* **18** : 94) is *Tellina truncata* Linnaeus.

From the foregoing it appears that Schumacher's species *Gari vulgaris* is defined by its extant type specimen and should be considered as belonging to *Gari amethystus* (Wood, 1815) which, fortunately, has priority.

The interpretation of *Tellina gari* Linnaeus has caused endless confusion, with the result that the name has been almost avoided in taxonomy. No harm will ensue from its suppression, and the species *Gari vulgaris* will be better defined without involving speculations over its synonymy with *Tellina gari* Linnaeus.

The solution of simply suppressing the specific name *gari* Linnaeus will have at least the following advantages:

The ambiguity of the species *Gari vulgaris* disappears, so that it can stand for the type of *Gari* Schumacher wanted by all contributors.

The specific name *vulgaris* Schumacher, not in present use, disappears into the synonymy of a well-known species from the geographical area wanted.

The argument between Cox and Lemche (& Parker) is ended without preference for any of their proposed solutions.

The plenary powers will be involved only in one single section of suppressing a specific name not in general use.

The question of tautonymy or no tautonymy disappears.

The generic problem

Rehder (*Bull. zool. Nomencl.* **18** : 297) and Morrison (*ibid.* : 298), Rosewater (*ibid.* : 303) and Lemche & Parker (*ibid.* **19** : 175) have shown in several ways that at least subgeneric differences exist between (a) the Atlantic species (*Psammobia* Lamarck), (b) the East-Pacific species (*Psammocola* Blainville, 1824, or *Gobraeus*

Leach, 1852), and the Indo-Westpacific species (*Gari* Schumacher or *Gari* (*Gobraeus*) Prashad 1932 non Leach). To these three groups is to be added the fossil genus *Garum* Dall. All of these groups each need a name. However, as the name *Psammocola* has not been in use for any sufficient time to establish that it is certainly the oldest name for the Western American species, I am not inclined to ask for its inclusion in the Official List for the present time.

The family name problem

All (except Keen) of those favouring GARIDAE appear to do so because they consider *Psammobia* out of use for ever. Nothing is known about their opinion now it has been shown that *Psammobia* will have to exist side by side with *Gari* as a generic name in common use.

Robertson (*Bull. zool. Nomencl.* **18** : 301) makes the important point that rejection of PSAMMOBIIDAE does not automatically validate GARIDAE. SOLECURTIDAE d'Orbigny, 1846, is senior and would have to be suppressed as well. Such action, however, would seem extremely unwise, as *Solecurtus* cannot be guaranteed to stay forever within the same subfamily or even family as *Psammobia* or *Gari*. If closer study of the soft parts reveals that *Solecurtus* is to be placed in a distinct subfamily, the name SOLECURTINAE would be needed.

Before this difficulty arose, scientists have showed almost a fifty/fifty balance in their choice between PSAMMOBIIDAE and GARIDAE. Now that *Psammobia* has been found valid and useful, and the difficulties turn around the name GARIDAE, it would seem that the case has decided itself in favour of retaining the family name PSAMMOBIIDAE.

The spelling problem fervensis/faeroeensis

The only controversy left is about the spelling of the type-species of *Psammobia*. As it seems to be too small a point to trouble the Commission, I have decided to withdraw my part of support for the spelling *faeroeensis* and, accepting Turner's (*Bull. zool. Nomencl.* **18** : 300) argument—to favour the original spelling. It will then become possible to present for the Commission a single set of proposals that, I hope, can be accepted by all participants in the discussions.

On the background of the above analysis of the case, I propose as a compromise that the Commission decide to:

(1) use its plenary powers:
  (*a*) to suspend the rule by which automatic correction of the generic name *Gari* Schumacher, 1817 (the genitive form of a Latin noun) to the nominative form *Garum* would be required, and to declare that *Gari* shall be treated as a noun in the nominative singular;
  (*b*) to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy the specific name *gari* Linnaeus, 1758, as published in the binomen *Tellina gari*;
  (*c*) to set aside any consequence of tautonymy in the case of *Tellina gari* as suppressed in (b) above, and declare that *Gari vulgaris* Schumacher, 1817, shall be the type of *Gari* Schumacher, 1817;
(2) place the following generic names on the Official List of Generic Names in Zoology:
  (*a*) *Gari* Schumacher, 1817 (gender : neuter), type-species, as designated under (1) (c) above, *Gari vulgaris* Schumacher, 1817;
  (b) *Psammobia* Lamarck, 1818 (gender : feminine), type-species by designation by Children, 1823, *Tellina fervensis* Gmelin, 1791 (cited by Children as *feroensis*);
  (*c*) *Garum* Dall, 1900 (gender : neuter), type-species, by monotypy, *Psammobia filosa* Conrad, 1833;
(3) place the following specific names on the Official List of Specific Names in Zoology:
  (*a*) *amethystus* Wood, 1815, as published in the binomen *Solen amethystus*

[the oldest available name for *Gari vulgaris* Schumacher, 1817, type-species of *Gari* Schumacher, 1817];

(*b*) *fervensis* Gmelin, 1791, as published in the binomen *Tellina fervensis* (type-species of *Psammobia* Lamarck, 1818);

(*c*) *filosa* Conrad, 1833, as published in the binomen *Psammobia filosa* (type-species of *Garum* Dall, 1900);

(4) place the family name PSAMMOBIIDAE (correction of PSAMMOBIADAE) Fleming, 1828 (type-genus *Psammobia* Lamarck, 1818) on the Official List of Family-Group Names in Zoology;

(5) place the family name PSAMMOBIADAE Fleming, 1828 (type-genus *Psammobia* Lamarck, 1818) (an incorrect original spelling for PSAMMOBIIDAE) on the Official Index of Rejected and Invalid Family-Group Names in Zoology;

(6) place the specific name *gari* Linnaeus, 1758, as published in the binomen *Tellina gari* (as suppressed under the plenary powers in (1) (a) above) on the Official Index of Rejected and Invalid Specific Names in Zoology.

ALTERNATIVE PROPOSAL TO THE SUPPRESSION UNDER THE PLENARY POWERS OF *EULACHNUS* DEL GUERCIO, 1909. Z.N.(S.) 1541

(see volume 20, pages 236–237, volume 21, pages 2–3)

By V. F. Eastop (*British Museum* (*Natural History*), *London*)

D. Hille Ris Lambers and F. C. Hottes (*Bull. zool. Nomencl.* **21** : 2–3) suggest that Del Guercio's description of *Eulachnus agilis* was based on a mixture of genera, including a *Eulachnus* in the generally accepted sense of the word. *Lachnus agilis* Kltb. is thus available as the type of *Eulachnus* Del Guercio which becomes the correct name for the genus, with *Protolachnus* Theobald as a synonym.

In the interests of nomenclatural stability the International Commission on Zoological Nomenclature is therefore asked not to vote on my (*Bull. zool. Nomencl.* **20** : 236–237) plea for the suppression of *Eulachnus*, but is requested to take the following action:

(1) to place the generic name *Eulachnus* del Guercio, 1909 (gender : masculine), type-species designated by Wilson, 1911 (*Ann. ent. Soc. Amer.* **4** : 54), *Lachnus agilis* Kaltenbach, 1843, on the Official List of Generic Names in Zoology;

(2) to place the specific name *agilis* Kaltenbach, 1843, as published in the binomen *Lachnus agilis* (type-species of *Eulachnus* Del Guercio, 1909) on the Official List of Specific Names in Zoology.

COMMENT ON THE PROPOSED DESIGNATION OF TYPE-SPECIES FOR *YOLDIA* MÖLLER, 1842, AND FOR *PORTLANDIA* MÖRCH, 1857 AND ON THE PROPOSED REJECTION OF *YOLDIA ARCTICA* MÖLLER, 1842, Z.N.(S.) 1522.

(see volume 21, pages 127–129)

by A. H. Clarke, Jr. (*National Museum of Canada, Ottawa, Canada*)

I am in full agreement with the arguments and proposals by Dr. Soot-Ryen cited above and wish to present additional evidence which, in my opinion, strengthens the case for acceptance of these proposals.

1. Soot-Ryen states that *Portlandia* Mörch, 1857, (with *Nucula arctica*, Gray 1824 as type) has been in general use in Northern Europe for more than 50 years. That is certainly true. In addition, since the inclusion of *Portlandia* as a genus distinct from *Yoldia* in the monumental work by Thiele (1935), most of the workers in other parts of the world concerned with northern and arctic marine bivalves have also recognized *Portlandia*. In the Soviet and Japanese literature published since 1935 *Portlandia* appears to have been used universally. North American usage since that date has been approximately equally divided; in about half of the publications *Portlandia* has been used for *Nucula arctica* Gray and for species closely related to it and in the other half *Yoldia* has been used. A tendency exists for *Portlandia* to be accepted in critical taxonomic works (except in MacGinitie, 1959) however, and for *Yoldia* (instead of *Portlandia*) to be used in less critical faunal lists and catalogues which appear to have relied heavily on the comprehensive list of Johnson, 1934, for guidance. In that work, and in some earlier works, *Portlandia* was placed in synonymy with *Yoldia*.

2. Stewart, 1930, and Clarke, 1963, have also discussed the *Portlandia-Yoldia* problem and have concluded that both names should be utilized and are applicable to mutually exclusive genera.

3. Confusion still exists with regard to the status of *Nucula arctica* Gray and *Portlandia* Mörch. For example, for the same taxon MacGinitie, 1959, used *Yoldia arctica* (Gray); Ellis, 1960 used *Portlandia arctica* (Gray); and Richards, 1962, used *Yoldia* (*Portlandia*) *glacialis* (Wood). This is unfortunate because *Portlandia arctica* (Gray) and some of its congeners are abundant and important arctic species. Approval of Soot-Ryen's proposals (*loc. cit.*) is needed to rectify these difficulties.

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Jena.

COMMENT ON THE HETEROPTERAN FAMILY-GROUP NAME GERRIDAE Z.N.(S.) 1556

(see volume 20, pages 307–308)

By Carl W. Schaefer (*Department of Biology, Brooklyn College, Brooklyn* 10, *New York*)

I support the proposal of Bailey and Moore for the reasons they have given and for the more general one that stability in family-group names is to be desired not only for its own sake but because more organisms more widely known to more zoologists are subsumed under these names.

To the list of family-group names to be rejected given in Paragraph 4 of Bailey and Moore's Appeal, I suggest the following name in the Heteroptera be added: GERRIDIDAE. This name is not only etymologically incorrect (because the combining form of "*Gerris*" is "*Gerr-*", not "*Gerrid-*"); but it is a name only rarely used; indeed, the only use of it that I am aware of is by Tonapi (1959, *Ent. mon. Mag.* **95** : 29) and Tonapi and Karandikar (1961, *Entomologist* **1961** : 227).

FURTHER COMMENTS ON THE PROPOSED REJECTION OF THE NEOTYPE AND TYPE-LOCALITY OF *THAMNOPHIS SIRTALIS* (LINNAEUS, 1758) (REPTILIA) Z.N.(S.) 1600

By Francis R. Cook (*National Museum of Canada, Ottawa, Ontario*)

1. Since the publication of my submission (Cook, 1963, *Bull. Zool. Nomencl.* **20** : 397–400) requesting that the portion of the amendment to Opinion 395 in which the type-locality and neotype for *Coluber sirtalis* Linnaeus 1758 were designated by a ruling of the Commission be invalidated on the grounds that the type-locality was chosen in error, several comments and alternate proposals have been received by the Commission. The purpose of the present submission is briefly to summarize and comment on these and to submit a revision of my original proposal.

2. Before discussing these an inadvertant slip in wording of my original submission should be corrected. I stated (*ibid.* p. 399) that Holbrook was suggested as the new basis for interpreting *sirtalis* because his description was " . . . in the region where the Garter Snake was first recognized under the name *sirtalis* . . . ". This should have read " first *figured* ". Actually, Richard Harlan (1827, Genera of North American Reptilia and a Synopsis of the Species. *J. Acad. Nat. Sci. Philad.* **5** : 352) had published the first description of specimens of the Eastern Garter Snake under the name *sirtalis*. Harlan had recognized that he was making a departure from the Linnaean description as he remarks " Hitherto not accurately described ". This had been pointed out previously by Klauber (1948, *Copeia* **1948** : 1–14).

3. Subsequent to my proposal Dr. Carl L. Hubbs, (Scripps Institution of Oceanography, La Jolla, California) has submitted an alternate solution of the problem to the Commission (January 6, 1964; amended March 30, 1964). He has pointed out that favourable action on my proposal would (1) fix the name *sirtalis* on a specimen and on a species the original author did not see, (2) fix the type-locality as different from that which he published, (3) require a change in type-locality. He suggests that the better, and more logical solution would be to request the Commission:

(1) to revoke Opinion 385 and replace it by a new Opinion simply providing that *Coluber sirtalis* Linnaeus (1758, *Syst. Nat.* (ed. 10) **1** : 22) be suppressed, for purposes of the Law of Priority and the Law of Homonymy, along with all other subsequent adoptions of the name sirtalis based on *Coluber sirtalis* Linnaeus prior to the publication of *Coluber sirtalis* Harlan 1827 in Genera of North American Reptilia and a Synopsis of the Species. *J. Acad. Nat. Sci. Philad.* **5** : 352;

(2) to place the species group-name *sirtalis* Harlan 1827, as published in the binomen *Coluber sirtalis* Harlan on the official List of Specific Names in Zoology;

(3) to remove the species-group name " *sirtalis, Coluber*, Linnaeus 1758 " from the Official List of Specific Names in Zoology (Name No. 676) and place this name in the Official List of Rejected and Invalid Specific Names in Zoology.

4. Dr. Lawrence M. Klauber (233 West Juniper Street, San Diego, California) has prepared a list containing 13 uses of *sirtalis* between Linnaeus, 1758 and Harlan, 1827 which would have to be suppressed under Hubbs' proposal. In addition he cites four other names which were applied to the Eastern Garter Snake during this period: *ordinatus* (13 uses), *ibibe* (10 uses, mostly doubtfully binomial), *taenia* (1 use), *bipunctatus* (2 uses; probably synonym of *ordinatus*) (March 2, 1964). Both Dr. Klauber and the writer have taken the view that each citation of these names prior to Harlan, 1827 should be individually suppressed if the Hubbs' proposal is accepted. Dr. Hubbs has pointed out (March 30, 1964) that Klauber's list would have to be followed by comment " and all other usages of these names prior to 1827 " in case any have been inadvertently overlooked. He has suggested that the plenary powers could be used instead to indicate that the name *sirtalis* Harlan, 1827 is not to be invalidated by any earlier applied name, through the workings of the Law of Priority.

5. In letters to the Commission commenting on my original proposal, Dr. Hobart M. Smith and Dr. Ernst Mayr have taken the view that no action should be taken at

present as there is danger that any decision now might itself have to be revoked if another, more suitable, type-locality was discovered. Dr. Smith has taken the stand that the Commission, in fact, should vote to reaffirm its faith in Opinion 385 as it presently stands.

6. Part of the objections advanced by Smith and Mayr stem from the incidental bi-product of a change in the current type-locality, the retention of the subspecific name *pallidula* for the Maritime Garter Snake. Its retention has, however, no bearing on the merits of correcting the erroneous type-locality for *sirtalis*. There also seems to be no justification for fears that the type-locality for *sirtalis* will eventually require additional rulings by the Commission. The 1961 Code states that " If a type-locality was erroneously designated or restricted it shall be corrected ". Certainly, a type-locality chosen for the Eastern Garter Snake on the basis of the hypothetical origin of a specimen generally acknowledged to have been another species, and which could not have come from that locality, must be considered erroneous. There seems little rationale for advising the Commission to ignore its own recommendation, at least in this case.

7. While Dr. Hubbs' proposal has merit, a revision of my original proposal, using Harlan instead of Holbrook as the basis for interpretation of *sirtalis* Linnaeus, is the simplest procedure. Neither Hubbs nor Klauber feel that it is essential to use a figure for the basis of *sirtalis* which was the original reason for the choice of Holbrook. My proposal has the following advantages: (1) it would leave Opinion 385 essentially intact, rejecting only part of the *amendment* of the Opinion and substituting a new basis for interpretation of the name; (2) it requires no change in the Official List of Specific names in Zoology; (3) it requires no additions to the Official Index of Rejected and Invalid Specific Names in Zoology; (4) it requires no mass or blanket suppressions of previous names; (5) it requires no change in the authorship which has been cited many times previously, and thus lends to no confusion in this respect; (6) it accomplishes the same result as Hubbs' proposal, i.e. Harlan, 1827 as the basis for interpreting *sirtalis*.

8. If Harlan, 1827 is designated as the basis for interpreting *sirtalis* Linnaeus, then no additional ruling is required by the Commission on the type-locality problems as Harlan plainly states " Inhabits Pennsylvania ". If necessary, a future revisor of the species might wish to restrict this to " the vicinity of Philadelphia " as the most likely origin of Harlan's specimens, but this may be left to his discretion, and requires no action by the Commission. Harlan also remarks " Specimens in the Cab. of A.N.S. ". Unfortunately these are probably no longer in existence (P.C.: Edmond V. Malnate, Department of Ichthyology and Herpetology, the Academy of Natural Sciences of Philadelphia, March 8, 1964). Selection of a neotype, if necessary, may also be left to the selection of a future revisor.

9. The Commission is therefore requested:

(1) to invalidate that part of the amendment to Opinion 385 designating a erroneous type-locality (Quebec, Quebec County, Province of Quebec, Canada) and the neotype selected from that locality (Chicago Natural History Museum No. 73660) as the basis for interpretation of *Coluber sirtalis* Linnaeus, 175 and

(2) to replace the rejected part of the amendment with the ruling that the name *Coluber sirtalis* Linnaeus 1758 will be interpreted from the description and type-locality given for *Coluber sirtalis* by Richard Harlan in Genera of North American Reptilia and a Synopsis of the Species. *J. Acad. Nat. Sci. Philad.* **5** : 352 (1827).

COMMENTS ON THE PROPOSED STABILIZATION OF THE GENERIC NAME *MACROPUS* SHAW, 1790. Z.N.(S.). 1584

(see volume 20, pages 376–379; volume 21, pages 249–259)

By H. H. Finlayson (*South Australian Museum, Adelaide*)

I am informed by Dr. W. D. L. Ride of the Western Australian Museum, that the question of the official names to be adopted for the Grey Kangaroo, Grey Wallaroo, and Parry's Wallaby is now before the Commission.

In view of the unambiguous use of the name *Macropus giganteus*, *Macropus robustus*, and *Macropus parryi* respectively for these three species, for a long period of years and in a voluminous literature, their retention is a matter of great practical convenience.

I beg to record my opinon, that if necessary, the plenary powers of the Commission should be invoked to regularize such a course.

By T. C. S. Morrison-Scott (*British Museum* (*Natural History*), *London*)

I should like to support the revised application of Ride and Calaby (*Bull. zool. Nomencl.* 21 : 250-255) which, by removing *canguru* separates the nomenclatural problems from the taxonomic and historical problems. Their proposal achieves the desirable object of preserving well known specific names at the same time as it stabilizes *Macropus* Shaw, 1790. And it still leaves everyone free to take their own view of the identity of Captain Cook's Kangaroo (or Kangaroos) without causing any inconvenience to anyone else.

By E. Le G. Troughton & Donald F. McMichael
(*The Australian Museum, Sydney*)

We have not, as yet, seen the published comments on the application of Calaby, Mack and Ride concerning the names of Australian Kangaroos, but we have been favoured with manuscript copies of comments by Kirkpatrick and Woods, through the courtesy of Mr. J. T. Woods, Director of the Queensland Museum, and with additional comments by Calaby and Ride through the courtesy of Dr. W. D. L. Ride, Director of the Western Australian Museum. The result of these appears to be that Kirkpatrick and Woods believe the holotype of *Mus canguru* Müller to have been a Grey Wallaroo on the basis of (a) their analysis of the dental features of the macropod skull illustrated in a painting by Nathaniel Dance and (b) their possession of specimens of the Grey Wallaroo from the vicinity of Cooktown, north Queensland, one of which is proposed as Neotype of *Mus canguru*. Furthermore, Calaby and Ride have accepted the evidence of Kirkpatrick and Woods which suggests that the Hunterian skull previously thought by them to have belonged to the holotype of *Mus canguru*, could not have come from a 38 lb Great Grey Kangaroo, and now support Kirkpatrick and Woods claim that the holotype was a Grey Wallaroo.

On these matters we would make the following comment:

(1) The fact that Calaby and Ride have abandoned their case completely justifies our earlier comments on the subject and proves the weakness of the original argument.

(2) We believe that the identification of the 38 lb holotype as a Grey Wallaroo is equally unsound for the following reasons.

(a) The skull painted by Dance is of doubtful origin. There is no real evidence that it is one of the original Endeavour River specimens, the only link being the reference to it in Dryander's Catalogue of Parkinson Drawings from the Banks Library. The date at which this Catalogue was prepared is unknown, but it is undoubtedly while Dryander was librarian to Sir Joseph Banks after Solander's death, and thus could have been prepared at any time between 1782 and about 1808. It seems most likely that it was prepared at the time Dryander was making his famous Catalogue of the Library of Sir Joseph Banks which was published between 1796 and 1800. The date when the painting was made is also unknown. Morrison-Scott and Sawyer state " Captain Cook sat to him (Dance) for his portrait in 1776 . . . after which year Dance appears to have given up painting." However, this is not quite correct. Dance was a successful portrait painter and a Royal Academician but in 1776 he ceased to exhibit. He did not renounce his academic distinction until after his marriage in 1790, and even then did not give up painting as an amateur, since he exhibited some landscapes after his marriage. He lived until 1811, and the Dictionary of National Biography states that " Even late in life he continued to paint landscapes with considerable success." It is therefore not impossible that he painted the skull at a date subsequent to the settlement at Port Jackson, from which locality Wallaroo skulls would soon have been available. The interpretation of the dentition by Kirkpatrick and Woods indicates that this skull almost certainly came from an animal weighing about 40 lbs but they also state that " It is conceded that imperfections in Dance's drawing weaken any detailed argument on many of the characters depicted." Because of the uncertainty as to its origin, and the time at which it was painted, and the lack of diagnostic detail in the painting, we reject this skull as having any real value in the determination of the species *Mus canguru* Müller.

(b) The proportions of a Wallaroo, especially of the ears and the tail, do not agree with the Parkinson drawings or Solander's description. The slenderness of the limbs and tail and the proportionate length of the tail compared with the total length are characteristic of the Whiptail Wallaby and do not agree with a Wallaroo at any stage subsequent to leaving the pouch. The Cooktown Wallaroo skin (Aust. Mus. No. M.4606) shows the broadly based tail to reach barely between the shoulders, whereas the tail of the holotype equals the body length. The illustration of the animals in Hawkesworth also agrees with the naturalists description of the " slender made " kangaroo resembling a greyhound. The Parkinson sketches, together with the description that "the head and ears were most like a Hare's of any animal I know " also suit a Whiptail Wallaby but do not agree with the shorter, triangular ears of the Wallaroo.

(c) The colour of the Wallaroo found close to Cooktown, as evidenced by specimens in both the Australian and Queensland Museums, is a rich rufous tone. The dorsal colouring of the long hair of these Wallaroos from shoulders to rump is from russet to tawny (Ridgway) in striking contrast to the short " hairy furr of a darkmouse or grey colour " or the " short ash-coloured hair " described for the holotype of *Mus canguru*. The backs of the ears of Wallaroos from Cooktown are a uniform ochraceous-tawny colour, in contrast with the holotype of *Mus canguru* which Solander described as " colour of the whole animal ashy, with darker ears " and elsewhere as " ears, excepting the base, fine sprinkled grey ". The neotype proposed by Kirkpatrick and Woods is however not the rufous or antilopine Wallaroo, but a specimen of a Grey Wallaroo, which would be nearer the holotype of *Mus canguru* in colour. However, this specimen was collected at the Annan River, some 17 miles South of Cooktown, and thus beyond the range from which the holotype came. On the other hand, Wallaroos obtained by the Queensland Museum at Oakey Creek, 6 miles West of Cooktown are all " antelopine " specimens (Woods, pers. comm.)

In view of these facts we maintain our original submissions that the 38 lb animal shot within a day's journey of Cooktown by Lt. Gore on July 14th, 1770 was a Whiptail Wallaby and request the Commission to take appropriate action in conformity with our submissions. We oppose the suggested suppression of *Mus canguru* Müller, because we consider that its identity is quite certain, and because the specific name *canguru* is appropriately linked with the first described Australian macropod, which is of considerable historical interest.

COMMENT ON THE VALIDATION OF *BORIOMYIA* BANKS, 1905. Z.N.(S.) 1531

(see volume 20, pages 305–306, and volume 21, page 91)

By Bo Tjeder (*Entomological Institute of Lund University, Lund, Sweden*)

An important paper by Nathan Banks appeared in 1905, entitled " A revision of the Nearctic Hemerobiidae " (Trans. Amer. Ent. Soc. **32**, pp. 21–51, pls. 3–5). In that paper Banks carried out a much needed division of the genus *Hemerobius* L. (as that genus had been interpreted since the middle of the nineteenth century). He divided the genus into three genera, with diagnoses and designations of type species:

Hemerobius L. (s. str.)	Type: *H. humuli* L. 1758
Boriomyia n. gen	Type: *H. disjunctus* Banks, 1897
Sympherobius n. gen.	Type: *H. amiculus* Fitch, 1856.

This division was well-based and so accepted, not only in the U.S.A. but everywhere. The genus name *Boriomyia* became thus used for species allied to *B. disjuncta* (Banks, 1897) not only by Banks himself in a number of papers but also in several papers by, among others:

Andreu (1911), Eglin (1936, 1937), Esben-Petersen (1920, 1924, 1925, 1929, 1931, 1932, 1934, 1936, 1938, 1939, 1940), Essig (1926), Handschin (1936), Anton Jansson (1925), Killington (1926, 1927, 1928, 1929, 1931, 1932, 1933, 1934, 1935, 1936), Kimmins (1928, 1929, 1933, 1934, 1963), Klingstedt (1929, 1932, 1934, 1935), Krüger (1922), Lackschewitz (1929), Lindroth (1931), Lucas (1922, 1926, 1927, 1929), Morton (1914, 1921, 1932, 1933, 1935, 1936), Mosely (1932, 1933, 1934, 1935), Navás (1910, 1912, 1913), Stitz (1927, 1931), Tillyard (1923, 1926), Withycombe (1922, 1923, 1925) and by the present writer (1931, 1932, 1936, 1938, 1939, 1940, 1941, 1943, 1944, 1945, 1946, 1948, 1951, 1953, 1954, 1955, 1961, 1963, 1964).

The genus name *Boriomyia* Banks, 1905, so became universally adopted and familiar to all students of the order Neuroptera.

Until 1937 all the authors have dealt with *Boriomyia* in the sense intended by Banks in the above mentioned revision. In 1937, however, Killington observed that Banks in a local list, " A list of the neuropteroid insects, exclusive of Odonata, from the vicinity of Washington, D.C. " had used the genus name *Boriomyia* for two species, thus:

" *Boriomyia fidelis* Banks.
Taken near Glencarlyn, Va, 23rd June, in pine woods.
Boriomyia speciosus Banks.
The type is from Plummer's Island, Md., 9th Sept. "

This local list was published in November 1904 (Proc. Ent. Soc. Wash., **6**, pp. 201–217).

Killington claimed, therefore, in Appendix B of volume II of his work " A Monograph of the Neuroptera ". printed in 1937, that:

> " *Boriomyia* (1904) was valid under the International Rules of Nomenclature, containing as it did two described species, that Banks was incorrect in 1906 in describing the genus as new, and that his designation of *Hemerobius disjunctus* as the genotype could not stand "

(The stated year " 1906 " should correctly be 1905, because the revision bears the printed publication date: " December 1905 ".) Killington continues:

" Banks's unfortunate action in this latter paper . . . "

Carpenter has, however, in 1940 (Proc. Amer. Acad. Arts and Science, **74**) in a foot-note on page 215 informed:

> " Mr. Banks has explained to me that although his revision was published after the Washington list, it was sent off for publication before the latter, which did not therefore include genotype designation ".

It was thus not dependent upon an " unfortunate action " of Banks that the Washington list did not contain diagnosis and type designation. He had presumably intended that the revision was to be printed before the Washington list. No rules were at that time in force, which could risk the type designation. The chronologic order of the prints could not therefore be expected to lead to the consequence which the retrospective application of the Rules caused. There was thus no reason for Banks to await the printing of the revision before sending off his manuscript of the Washington list to the printer.

The delayed printing of the revision would have been of no importance for the interpretation of the genus if the two species enumerated in the Washington list really belonged to *Boriomyia* (sensu 1905). But Banks himself discovered later on that they were different from the *disjunctus* group of species and described, in 1930, a new subgenus *Allotomyia* for these two species. That subgenus is nowadays considered a valid genus.

Kimmins, in his proposal to the International Commission (Z.N.(S.) 1531), asked the Commission to place the generic name *Boriomyia* Banks (1905), type *Hemerobius disjunctus* Banks (1897), on the Official List of Generic Names in Zoology and to suppress the generic name *Boriomyia* Banks (1904) and place it on the Official Index of Rejected and Invalid Generic Names in Zoology. The genus name *Boriomyia* should in this manner definitively be established to receive the interpretation originally intended by Banks in his revision. In the liveliest degree the present author recommends approval of Kimmins' proposal.

On approval the two genera in question should be cited:

1. *Boriomyia* Banks, 1905

Synonymy
Boriomyia Banks, 1905, Trans. Amer. Ent. Soc. **32**, p. 36.
Wesmaelius Krüger, 1922, Stett. Ent. Zeit. **83**, p. 170.
Kimminsia Killington, 1937, Mon. Brit. Neur. **2**, p. 254.
Type species: *Hemerobius disjunctus* Banks, 1897 (orig. designation) (about 40 species; distribution: Holarctis and Africa, the Philippines, New Zealand, Guatemala).

2. *Allotomyia* Banks, 1930

Synonymy
Boriomyia Banks, 1904, Proc. Ent. Soc. Wash. **6**, p. 209 (suppressed).
Allotomyia Banks, 1930, Psyche, **37**, p. 224 (as subgenus).
Boriomyia Killington, 1937, Mon. Brit. Neur. **2**, p. 256.
Type species: *Hemerobius fidelis* Banks, 1897 (designation by Killington, 1937).
(2 species; distribution: Nearctis).

If the Commission refuses approval to Kimmins' application it will be necessary to use the genus name *Wesmaelius* Krüger (1922) for the above mentioned genus No. 1 (with *Kimminsia* Killington, 1937, as a synonym), while *Allotomyia* Banks (1930) becomes a synonym of *Boriomyia* Banks (1904) under genus No. 2.

Prof. Carpenter, in his " Comment on the proposed validation of *Boriomyia* Banks, 1905 " (*Bull. zool. Nomencl.* **21**, p. 91, 1964), states that as far as he is aware:

> " Mr. Tjeder has been the only one, in all the years since 1937, who has adhered to the use of *Boriomyia* Banks (sensu 1905)! The only exception to that statement is (Zelený 1963), . . . "

This statement that Zelený (1963) should be the only exception is not quite true. Zelený has also in a paper in 1962 (Časopis Cs. Spol. Ent. **59**, p. 59–67) used *Boriomyia* Banks (sensu 1905) and further the genus name *Boriomyia* was used by the following authors:

Fristrup, B. 1942. (Neuroptera and Trichoptera, *in:* The Zoology of Iceland, **3**, pp. 1–23)

AUBER, J. 1958. (Névroptéroides, in: Faune terrestre et d'eau douce des Pyrénées-Orientales, **3**, pp. 1–42)

KIS, BELA 1959. (Faunenkatalog der bisher in der Rumänischen Volksrepublik bekannten Neuropteren und Mecopteren.—Fol. Ent. Hung. ser. nov. **12**, pp. 331–347)

BERLAND, L. 1962. (Les Névroptères de France.—Atlas des Névroptères de France, Belgique, Suisse **5**, pp. 1–158)

HÖLZEL, H. 1963. (Nachrichtenblatt Bayerischer Entomologen, **12**, pp. 6–7)

OHM, PETER, 1963. (Faunist. Mitt. aus Norddeutschland, **2**, pp. 67–71)

KIMMINS, D. E. 1963. (Entom. Gazette, **14**, pp. 140–149).

Prof. Carpenter maintains in his " Comment " that he does not share my opinion that *Boriomyia* Banks (1905) and *Wesmaelius* Krüger (1922) are congeneric. In this case I am opposed to the ancient, tenaciously surviving opinion of the wing venation as being of a sole or chief prevailing importance in genus taxonomy. Krüger based *Wesmaelius* solely on small differences in the venation. I am not able to find differences between examined species of *Wesmaelius* Krüger (1922) and *Boriomyia* Banks (1905) of the *disjuncta*-group of such an importance that they justify an opinion of *Wesmaelius* as a valid genus.

COMMENTS ON THE PROPOSED REJECTION OF HÜBNER'S " ERSTE ZUTRÄGE " Z.N.(S.) 1611

(see this volume, pages 58–80)

By M. Beier (*Naturhistorisches Museum, Vienna, Austria*)

Das mir übersandte Separatum bezüglich " Erste Zuträge zur Sammlung exotischer Schmetterlinge " von Hübner habe ich durchgesehen. Ich würde ebenfalls dafür stimmen, diese Arbeit als nicht publiziert zu betrachten (Ihr Punkt a). Nach unserem Exemplar zu schliessen, scheint es sich nämlich tatsächlich nur um einen unvollständigen Korrekturabzug zu handeln, den Hübner selbst später nicht mehr erwähnt.

By Ch. Boursin (*Paris*)

With regard to the report published by Dr. I. W. B. Nye, may I make the following observations:

(1) the fact that the " Erste Zuträge " was never completed is no reason for invalidating it. Other works similarly unfinished have been accepted without question—for example the " Faune de l 'Andalousie " of Rambur, 1838/39, and many others.

(2) The fact that only three copies of the work are known provides no reason for considering it unpublished. Schiffermüller's Verzeichniss 1775 is comparable; and although there is less reason to accept it as valid, it has been validated by the I.C.Z.N.

(3) In view of the above considerations, all the generic names first introduced into the literature by Hübner in the above-mentioned " Erste Zuträge " must be regarded as valid; they have in fact been available for use for many years.

Any departure from the acceptance of the " Erste Zuträge " would seriously upset the stability of nomenclature.

By David F. Hardwick (*Canada Department of Agriculture, Ottawa, Canada*)

I should like to express my unqualified support for the suppression of the above-mentioned work. Dr. Nye has presented such an intelligent and comprehensive case for the suppression of the *Erste Zuträge* that I really do not think any amplification is necessary. As indicated by Dr. Nye, the work has been ignored by all Lepidopterists on the North American continent in matters pertaining to nomenclature. The recognition of the *Erste Zuträge* would cause disruptive changes in a presently fairly stable interpretation of names. The work therefore should be suppressed as requested by Dr. Nye.

By I. F. B. Common (*Commonwealth Scientific & Industrial Research Organization, Canberra, Australia*)

I should like to offer my full support for the application of Dr. I. W. B. Nye for the rejection for nomenclatorial purposes of the pamphlet by J. Hübner entitled *Erste Zuträge zur Sammlung Exotischer Schmetterlinge*, printed in 1808. I have read with great interest his submission published in the *Bulletin of Zoological Nomenclature*, and consider that he has marshalled a series of very impressive arguments to support his application. Of special significance are the cogent propositions (paragraphs 9–15) supporting Dr. Nye's contention that the *Erste Zuträge* was never published, but was simply a printer's proof. If these propositions are accepted, then it follows that the occasional introduction of an *Erste Zuträge* name into the literature since Hemming's first discovery of this printer's proof has been invalid. No justification therefore exists at present for substituting these names for the many well-known names of long and established usage. To avoid further confusion, action by the Commission should rule that the *Erste Zuträge* has not been published within the meaning of the International Code, and should place on the appropriate Official List or Index the generic names as set out in paragraphs 15(a)–(1) of Dr. Nye's application.

By E. L. Todd (*V.S. Department of Agriculture, Washington, D.C., U.S.A.*)

I was in favor of the action recommended by Franclemont Z.N.(S.) 353 therefore I support Dr. Nye's similar application Z.N.(S.) 1611, at least in part, as will be explained.

Z.N.(S.) 1611–1. (a). I support the action recommended completely. It seems obvious to me that Hübner's *Erste Zuträge zur Sammlung exotischer Schmetterlinge* dated 1808 has not been published within the meaning of the International Code of Zoological Nomenclature (1961), Article 8. The pamphlet undoubtedly was a printer's proof that was not published by Hübner. We shall probably never know Hübner's reason or reasons for discarding this printer's proof, but I believe his action may have resulted because of his changing and expanding system of classification. Hemming (" Hübner ", 1937, vol. 1, pp. 13–19) has discussed Hübner's views on classification very thoroughly and has demonstrated (paragraph 9 — " VII. — The system proposed in a letter dated 1809 ") that by 1809 Hübner was proposing a far more elaborate system than that found in the *Erste Zuträge*. It may be seen that on pages 8 and 9 of of the *Erste Zuträge*, the names appear as trinominals. This was the system employed in the *Sammlung exotischer Schmetterlinge* of 1806. Obviously, by the time the plates of the *Zuträge zur Sammlung exotischer Schmettlinge* [sic], Erste Hundert, appeared [1809–1813] the text and system of classification of the *Erste Zuträge* was no longer suitable to Hübner's views on and his system of classification. Nearly all of the generic names of the *Erste Zuträge* (Stirps names) had been elevated to supergeneric rank and another supergeneric category, Familia, had been interposed between Stirps and Genus. His system down to Stirps is given on pages 4 and 5 of the *Zuträge*. In addition, each species described in the *Zuträge* is classified by a sentence showing placement according to Phalanx—Tribus and Strips—Familia. Thus the four species placed in the genus *Euclidia* in the *Erste Zuträge*, *gracilis*, *graphica*, *trifascia* and *cuspidea*, are placed in the Stirps *Euclidia* in the *Zuträge* but in two different Familiae and genera i.e. " Eine *Noctua semigeometra* und *Euclidia fasciata* " and " Eine *Noctua semigeometra* und *Euclidia maculata* ". *Gracilis* (as *gracilenta*) and *trifascia* are described in *Schinia*, *graphica* and *cuspidea* in *Drasteria* in the *Zuträge*.

Some of the generic changes between the *Erste Zuträge* and *Zuträge* are the result of changes of opinion as to the systematic position of the species in question. An example is *Ptilodon uncium* of the *Erste Zuträge* and *Gonodonta uncina* of the Zuträge. Hübner subsequently elevated *Ptilodon* (as Ptilodontes) to Stirps rank in Phalanx *Phalaenae*, Tribus *sphingoides* (see *Zuträge zur Sammlung exotischer Schmettlinge* [sic] 1818, Erste Hundert, p. 4 and *Verzeichniss bekannter Schmettlinge* [sic], [1819], p. 145) but he had realized that the species did not belong to that group and in the Zuträge placed it in " Eine *Noctua semigeometra* und *Meropis festiva* ".

Most of the works of Hübner appeared over a period of years and some of them were developed concurrently. During the years of development of these works, Hübner's views on classification are known to have changed, but the system utilized in the first part of each work was continued in that work to its completion. Geyer followed this same principle in completing the *Zuträge zur Sammlung exotischer Schmetterlinge*. In the Vierte Hundert, 1832, p. 24 Geyer classified *Gonodonta bidens* as "*Noctua semigeometra, Meropis festiva*" even though Hübner had changed the Familia placement of the genus in the *Verzeichniss bekannter Schmettlinge* [sic], [1823], p. 263. In consideration of Hübner's practice of maintaining a particular system of classification of each work, it does not seem likely that he would have changed his system if the *Erste Zuträge* had, in fact, been published. Certainly he would not have published two different texts referring to the same figures! The fact that Hübner and Carl Geyer never mentioned the *Erste Zuträge* in the various works or in the numerous sales lists seems to me to be conclusive evidence that it was not a published work.

Z.N.(S.) 1611—1.(b). I do not approve the action recommended. I believe the listing of the correct usage of the generic names is useful, but as this has been published in the application Z.N.(S.) 1611, Bull. zool. Nomencl., Vol. 21, Part 1, 1964, pp. 63–75, I do not see the need of placing the names on the Official List of Generic Names in Zoology. I suppose this is recommended for completeness of action, but I question the wisdom of such action. If Nye's work is complete and contains no errors, there would be no harm in placing the names on the "Official List". To my knowledge there is no reason to question his work, but I feel that I could not accept this or any other workers usage without personally verifying the correctness of the usage. This is an action I am not prepared to undertake at present. If the generic names with the respective types of genus are placed on the "Official List" and subsequent study reveals an error or errors exist, it would then be necessary to petition the Commission in order to correct the error or errors. The possibility of such action would mean more of a burden to the Commission which is obviously already overburdened. I assume this to be the case, otherwise why did so many years pass without some action on Franclemont's application Z.N.(S.) 353 of 1950 for the suppression of the *Erste Zuträge* for nomenclatorial purposes. If the generic names are not placed on the "Official List" and errors are discovered, the action of correction is simple publication discussing the error and the correct application and usage of the name.

Z.N.(S.) 1611—1.(c). I approve of the recommended action.

In the summary of published opinions and usages of authors dealing with the *Erste Zuträge* (see Nye, Bull. zool. Nomencl., Vol. 21, Pt. 1, 1964, pp. 75–80.) one important reference has not been included. It is the work of A. Glenn Richards, Jr. entitled "A Revision of the North American species of the Phoberia-Melipotis-Drasteria group of moths (Lepidoptera, Phalaenidae), Ent. Americana, Vol. 19, No. 1, 1939, pp. 1–2. Richards does not follow the *Erste Zuträge* and discusses the usage of *Melipotis* vs. *Heliothis*.

Finally, I will repeat the position of Franclemont and myself (see Nye, Bull. zool. Nomencl., Vol. 21, Pt. 1, pp. 77 and 79) that even if the *Erste Zuträge* were ruled to be published, the subsequent publication of the plates of the Erstes Hundert of the *Zuträge zur Sammlung exotischer Schmettlinge* [sic] in 1809–1813 should not be construed as validating the names that were *nomina nuda* in the *Erste Zuträge*, 1808.

OPINION 712

FORTY-SEVEN GENERA OF DECAPOD CRUSTACEA: PLACED ON THE OFFICIAL LIST

RULING.—(1) Under the plenary powers:

(a) the emendation to *Dorhynchus* of the generic name *Dorynchus* Thomson, 1873, is hereby validated;

(b) the emendation to *stirhynchus* of the specific name originally published in the combination *Axius stirynchus* by Leach in 1815 is hereby validated;

(c) the following specific names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

  (i) *diacantha* Latreille, 1825, as published in the binomen *Portunus diacantha*;

  (ii) *tridens* Herbst, 1790, as published in the binomen *Cancer tridens*;

(d) all designations of type-species for the genus *Callinectes* Stimpson, 1860, made prior to the present Ruling are hereby set aside and the nominal species *Callinectes sapidus* Rathbun, 1896, is hereby designated to be the type-species of that genus;

(e) it is hereby directed that the family-group name POTAMIDAE Ortmann, 1896, is to be given precedence over the family-group names THELPHUSIDAE Macleay, 1838, TRICHODACTYLINAE H. Milne Edwards, 1853, and PSEUDOTHELPHUSINAE Ortmann, 1893, by any zoologist who considers the type-genera of these families as belonging to the same family-group taxon.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Acanthonyx* Latreille, 1827 (gender: masculine), type-species, by monotypy, *Maia lunulata* Risso, 1816 (Name No. 1603);

(b) *Achaeopsis* Stimpson, 1857 (gender: feminine), type-species, by monotypy, *Achaeopsis spinulosus* Stimpson, 1857 (Name No. 1604);

(c) *Achaeus* Leach, 1817 (gender: masculine), type-species, by monotypy, *Achaeus cranchii* Leach, 1817 (Name No. 1605);

(d) *Anamathia* Smith, 1885 (gender: feminine), type-species, by monotypy, through *Amathia* Roux, 1828, *Amathia rissoana* Roux, 1828 (Name No. 1606);

(e) *Anapagurus* Henderson, 1886 (gender: masculine), type-species, by designation by Holthuis, 1962, *Pagurus laevis* Bell, 1845 (Name No. 1607);

(f) *Atelecyclus* [Leach, 1814] (gender: masculine), type-species, by monotypy, *Cancer* (*Hippa*) *septemdentatus* Montagu, 1813 (Name No. 1608);

(g) *Axius* Leach, 1815 (gender: masculine), type-species, by monotypy, *Axius stirhynchus* Leach, 1815 (Name No. 1609);

(h) *Brachynotus* De Haan, [1833] (gender: masculine), type-species, by subsequent monotypy; *Goneplax sexdentatus* Risso, 1827 (Name No. 1610);

(i) *Calappa* Weber, 1795 (gender: feminine), type-species, by designation by Latreille, 1810, *Cancer granulatus* Linnaeus, 1758 (Name No. 1611);

(j) *Calcinus* Dana, 1851 (gender: masculine), type-species, by designation by Dana, 1852, *Cancer tibicen* Herbst, 1791 (Name No. 1612);

(k) *Callinectes* Stimpson, 1860 (gender: masculine), type-species, by designation under the plenary powers in (1)(d) above, *Callinectes sapidus* Rathbun, 1896 (Name No. 1613);

(l) *Calocaris* Bell, 1846 (gender: feminine), type-species, by monotypy, *Calocaris macandreae* Bell, 1846 (Name No. 1614);

(m) *Catapaguroides* A. Milne Edwards & Bouvier, 1892 (gender: masculine), type-species, by designation by Holthuis, 1962, *Catapaguroides microps* A. Milne Edwards & Bouvier, 1892 (Name No. 1615);

(n) *Charybdis* De Haan, [1833] (gender: feminine), type-species, by designation by Glaessner, 1929, *Cancer feriatus* Linnaeus, 1758 (Name No. 1616);

(o) *Clibanarius* Dana, 1852 (gender: masculine), type-species, by tautonymy, *Cancer clibanarius* Herbst, 1791 (Name No. 1617);

(p) *Cymonomus* A. Milne Edwards, 1880, (gender: masculine), type-species, by monotypy, *Cymonomus quadratus* A. Milne Edwards, 1880 (Name No. 1618);

(q) *Dorhynchus* (emend. under the plenary powers of *Dorynchus*) Thomson, 1873 (gender: masculine), type-species, by monotypy, *Dorhynchus thomsoni* Thomson, 1873 (Name No. 1619);

(r) *Ergasticus* Studer, 1883 (gender: masculine), type-species, by monotypy, *Ergasticus clouei* Studer, 1883 (Name No. 1620);

(s) *Eriphia* Latreille, 1817 (gender: feminine), type-species, by designation by H. Milne Edwards, 1837, *Cancer spinifrons* Herbst, 1785 (Name No. 1621);

(t) *Ethusa* P. Roux, 1830 (gender: feminine), type-species, by designation by Fowler, 1912, *Cancer mascarone* Herbst, 1785 (Name No. 1622);

(u) *Eurynome* [Leach, 1814] (gender: feminine), type-species, by monotypy, *Cancer asper* Pennant, 1777 (Name No. 1623);

(v) *Harpilius* Dana, 1852 (gender: masculine), type-species, by monotypy, *Harpilius lutescens* Dana, 1852 (Name No. 1624);

(w) *Herbstia* H. Milne Edwards, 1834 (gender: feminine), type-species, by monotypy, *Cancer condyliatus* Fabricius, 1787 (Name No. 1625);

(x) *Heterocrypta* Stimpson, 1871 (gender: feminine), type-species, by original designation, *Cryptopodia granulata* Gibbes, 1850 (Name No. 1626);

(y) *Heteropanope* Stimpson, 1858 (gender: feminine), type-species, by designation by Balss, 1933, *Heteropanope glabra* Stimpson, 1858 (Name No. 1627);

(z) *Ilia* Leach, 1817 (gender: feminine), type-species, by monotypy, *Cancer nucleus* Linnaeus, 1758 (Name No. 1628);

(aa) *Jaxea* Nardo, 1847 (gender: feminine), type-species, by monotypy, *Jaxea nocturna* Nardo, 1847 (Name No. 1629);

(bb) *Latreillia* P. Roux, 1830 (gender: feminine), type-species, by monotypy, *Latreillia elegans* P. Roux, 1830 (Name No. 1630);

(cc) *Leucosia* Weber, 1795 (gender: feminine), type-species, by designation by Holthuis, 1959, *Cancer craniolaris* Linnaeus, 1758 (Name No. 1631);

(dd) *Medaeus* Dana, 1851 (gender: masculine), type-species, by subsequent monotypy, *Medaeus ornatus* Dana, 1852 (Name No. 1632);

(ee) *Munida* Leach, 1820 (gender: feminine), type-species, by monotypy, *Pagurus rugosus* Fabricius, 1775 (Name No. 1633);

(ff) *Munidopsis* Whiteaves, 1874 (gender: feminine), type-species, by monotypy, *Munidopsis curvirostra* Whiteaves, 1874 (Name No. 1634);

(gg) *Myra* Leach, 1817 (gender: feminine), type-species, by monotypy, *Leucosia fugax* Fabricius, 1798 (Name No. 1635);

(hh) *Nematopagurus* A. Milne Edwards & Bouvier, 1892 (gender: masculine), type-species, by monotypy, *Nematopagurus longicornis* A. Milne Edwards & Bouvier, 1892 (Name No. 1636);

(ii) *Ocypode* Weber, 1795 (gender: feminine), type-species, by designation by Latreille, 1810, *Cancer ceratophthalmus* Pallas, 1772 (Name No. 1637);

(jj) *Pachygrapsus* Randall, 1840 (gender: masculine), type-species, by designation by Kingsley, 1880, *Pachygrapsus crassipes* Randall, 1840 (Name No. 1638);

(kk) *Paguristes* Dana, 1851 (gender: masculine), type-species, by designation by Stimpson, 1858, *Paguristes hirtus* Dana, 1851 (Name No. 1639);

(ll) *Palicus* Philippi, 1838 (gender: masculine), type-species, by monotypy, *Palicus granulatus* Philippi, 1838 (Name No. 1640);

(mm) *Paromola* Wood-Mason & Alcock, 1891 (gender: feminine), type-species, by monotypy, *Dorippe cuvieri* Risso, 1816 (Name No. 1641);

(nn) *Philyra* Leach, 1817 (gender: feminine), type-species, by designation by H. Milne Edwards, 1837, *Cancer globus* Fabricius, 1775 (Name No. 1642);

(oo) *Pilumnopeus* A. Milne Edwards, 1867 (gender: masculine), type-species, by designation by Balss, 1933, *Pilumnopeus crassimanus* A. Milne Edwards, 1867 (Name No. 1643);

(pp) *Plagusia* Latreille, 1804 (gender: feminine), type-species, by designation by Latreille, 1810, *Cancer depressus* Fabricius, 1775 (Name No. 1644);

(qq) *Potamon* Savigny, 1816 (gender: neuter), type-species, by monotypy, *Potamon fluviatile* Savigny, 1816 (Name No. 1645);

(rr) *Richardina* A. Milne Edwards, 1881 (gender: feminine), type-species, by monotypy, *Richardina spinicincta* A. Milne Edwards, 1881 (Name No. 1646);

(ss) *Rochinia* A. Milne Edwards, 1875 (gender: feminine), type-species, by monotypy, *Rochinia gracilipes* A. Milne Edwards, 1875 (Name No. 1647);

(tt) *Uca* [Leach, 1814] (gender: feminine), type-species, by monotypy, *Cancer vocans major* Herbst, 1782 (Name No. 1648);

(uu) *Xaiva* Macleay, 1838 (gender: feminine), type-species, by monotypy, *Xaiva pulchella* Macleay, 1838 (Name No. 1649).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *asper* Pennant, 1777, as published in the binomen *Cancer asper* (type-species of *Eurynome* [Leach, 1814]) (Name No. 1995);

(b) *ceratophthalmus* Pallas, 1772, as published in the binomen *Cancer ceratophthalmus* (type-species of *Ocypode* Weber, 1795) (Name No. 1996);

(c) *clibanarius* Herbst, 1791, as published in the binomen *Cancer clibanarius* (type-species of *Clibanarius* Dana, 1852) (Name No. 1997);

(d) *clouei* Studer, 1883, as published in the binomen *Ergasticus clouei* (type-species of *Ergasticus* Studer, 1883) (Name No. 1998);

(e) *condyliatus* Fabricius, 1787, as published in the binomen *Cancer condyliatus* (type-species of *Herbstia* H. Milne Edwards, 1834) (Name No. 1999);

(f) *cranchii* Leach, 1817, as published in the binomen *Achaeus cranchii* (type-species of *Achaeus* Leach, 1817) (Name No. 2000);

(g) *craniolaris* Linnaeus, 1758, as published in the binomen *Cancer craniolaris* (type-species of *Leucosia* Weber, 1795) (Name No. 2001);

(h) *crassipes* Randall, 1840, as published in the binomen *Pachygrapsus crassipes* (type-species of *Pachygrapsus* Randall, 1840) (Name No. 2002);

(i) *curvirostra* Whiteaves, 1874, as published in the binomen *Munidopsis curvirostra* (type-species of *Munidopsis* Whiteaves, 1874) (Name No. 2003);

(j) *cuvieri* Risso, 1816, as published in the binomen *Dorippe cuvieri* (type-species of *Paromola* Wood-Mason & Alcock, 1891) (Name No. 2004);

(k) *depressus* Fabricius, 1775, as published in the binomen *Cancer depressus* (type-species of *Plagusia* Latreille, 1804) (Name No. 2005);

(l) *elegans* P. Roux, 1830, as published in the binomen *Latreillia elegans* (type-species of *Latreillia* P. Roux, 1830) (Name No. 2006);

(m) *feriatus* Linnaeus, 1758, as published in the binomen *Cancer feriatus* (type-species of *Charybdis* De Haan, [1833]) (Name No. 2007);

(n) *fugax* Fabricius, 1798, as published in the binomen *Leucosia fugax* (type-species of *Myra* Leach, 1817) (Name No. 2008);

(o) *glabra* Stimpson, 1858, as published in the binomen *Heteropanope glabra* (type-species of *Heteropanope* Stimpson, 1858) (Name No. 2009);

(p) *globus* Fabricius, 1775, as published in the binomen *Cancer globus* (type-species of *Philyra* Leach, 1817) (Name No. 2010);

(q) *gracilipes* A. Milne Edwards, 1875, as published in the binomen *Rochinia gracilipes* (type-species of *Rochinia* A. Milne Edwards, 1875) (Name No. 2011);

(r) *granulata* Gibbes, 1850, as published in the binomen *Cryptopodia granulata* (type-species of *Heterocrypta* Stimpson, 1871) (Name No. 2012);

(s) *granulatus* Linnaeus, 1758, as published in the binomen *Cancer granulatus* (type-species of *Calappa* Weber, 1795) (Name No. 2013);

(t) *hirtus* Dana, 1851, as published in the binomen *Paguristes hirtus* (type-species of *Paguristes* Dana, 1851) (Name No. 2014);

(u) *laevis* Bell, 1845, as published in the binomen *Pagurus laevis* (type-species of *Anapagurus* Henderson, 1886) (Name No. 2015);

(v) *longicornis* A. Milne Edwards & Bouvier, 1892, as published in the binomen *Nematopagurus longicornis* (type-species of *Nematopagurus* A. Milne Edwards & Bouvier, 1892) (Name No. 2016);

(w) *lutescens* Dana, 1852, as published in the binomen *Harpilius lutescens* (type-species of *Harpilius* Dana, 1852) (Name No. 2017);

(x) *macandreae* Bell, 1846, as published in the binomen *Calocaris macandreae* (type-species of *Calocaris* Bell, 1846) (Name No. 2018);

(y) *major* Herbst, 1782, as published in the combination *Cancer vocans major* (type-species of *Uca* [Leach, 1814]) (Name No. 2019);

(z) *mascarone* Herbst, 1785, as published in the binomen *Cancer mascarone* (type-species of *Ethusa* P. Roux, 1830) (Name No. 2020);

(aa) *microps* A. Milne Edwards & Bouvier, 1892, as published in the binomen *Catapaguroides microps* (type-species of *Catapaguroides* A. Milne Edwards & Bouvier, 1892) (Name No. 2021);

(bb) *nocturna* Nardo, 1847, as published in the binomen *Jaxea nocturna* (type-species of *Jaxea* Nardo, 1847) (Name No. 2022);

(cc) *nucleus* Linnaeus, 1758, as published in the binomen *Cancer nucleus* (type-species of *Ilia* Leach, 1817) (Name No. 2023);

(dd) *ornatus* Dana, 1852, as published in the binomen *Medaeus ornatus* (type-species of *Medaeus* Dana, 1851) (Name No. 2024);

(ee) *quadratus* A. Milne Edwards, 1880, as published in the binomen *Cymonomus quadratus* (type-species of *Cymonomus* A. Milne Edwards, 1880) (Name No. 2025);

(ff) *rissoana* P. Roux, 1828, as published in the binomen *Amathia rissoana* (type-species of *Anamathia* Smith, 1885) (Name No. 2026);

(gg) *rugosus* Fabricius, 1775, as published in the binomen *Pagurus rugosus* (type-species of *Munida* Leach, 1820) (Name No. 2027);

(hh) *sexdentatus* Risso, 1827, as published in the binomen *Goneplex sexdentatus* (type-species of *Brachynotus* De Haan, [1833]) (Name No. 2028);

(ii) *spinicincta* A. Milne Edwards, 1881, as published in the binomen *Richardina spinicincta* (type-species of *Richardina* A. Milne Edwards, 1881) (Name No. 2029);

(jj) *spinulosus* Stimpson, 1857, as published in the binomen *Achaeopsis spinulosus* (type-species of *Achaeopsis* Stimpson, 1857) (Name No. 2030);

(kk) *stirhynchus* (emend. under the plenary powers of *stirynchus*) Leach, 1815, as published in the binomen *Axius stirhynchus* (type-species of *Axius* Leach, 1815) (Name No. 2031).;

(ll) *thomsoni* Thomson, 1873, as published in the binomen *Dorhynchus thomsoni* (type-species of *Dorhynchus* Thomson, 1873) (Name No. 2032);

(mm) *tibicen* Herbst, 1791, as published in the binomen *Cancer tibicen* (type-species of *Calcinus* Dana, 1851) (Name No. 2033);

(nn) *rotundatus* Olivi, 1792, as published in the binomen *Cancer rotundatus* (Name No. 2034);

(oo) *verrucosus* Forskål, 1775, as published in the binomen *Cancer verrucosus* (Name No. 2035);

(pp) *caronii* P. Roux, 1830, as published in the binomen *Cymopolia caronii* (Name No. 2036);

(qq) *serratifrons* Kinahan, 1858, as published in the binomen *Ozius* (?) *serratifrons* (Name No. 2037);

(rr) *potamios* Olivier, 1803–1804, as published in the binomen *Cancer potamios* (Name No. 2038);

(ss) *biguttatus* Risso, 1816, as published in the binomen *Portunus biguttatus* (Name No. 2039);

(tt) *fluviatilis* Herbst, 1785, as published in the binomen *Cancer fluviatilis* (Name No. 2040);

(uu) *sapidus* Rathbun, 1896, as published in the binomen *Callinectes sapidus* (type-species of *Callinectes* Stimpson, 1860) (Name No. 2041);

(4) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) ATELECYCLIDAE Ortmann, 1893 (type-genus *Atelecyclus* [Leach, 1814]) (Name No. 369);

(b) AXIIDAE Huxley, 1879 (type-genus *Axius* Leach, 1815) (Name No. 370);

(c) CALAPPIDAE (correction of CALAPPIDEA) De Haan, [1833] (type-genus *Calappa* Weber, 1795) (Name No. 371);

(d) ILIINAE Stimpson, 1870 (type-genus *Ilia* Leach, 1817) (Name No. 372);

(e) LATREILLIIDAE (correction of LATREILLIDEA) Stimpson, 1858 (type-genus *Latreillia* P. Roux, 1830) (Name No. 373);

(f) LEUCOSIIDAE (correction of LEUCOSIADAE) Samouelle, 1819 (type-genus *Leucosia* Weber, 1795) (Name No. 374);

(g) OCYPODIDAE (correction of OCYPODIA) Rafinesque, 1815 (type-genus *Ocypode* Weber, 1795) (Name No. 375);

(h) PALICIDAE Rathbun, 1898 (type-genus *Palicus* Philippi, 1838) (Name No. 376);

(i) PLAGUSIINAE (correction of PLAGUSINAE) Dana, 1851 (type-genus *Plagusia* Latreille, 1804) (Name No. 377);

(j) POTAMIDAE (correction of POTAMONIDAE) Ortmann, 1896 (type-genus *Potamon* Savigny, 1816) (to be given precedence under the plenary powers over the family-group names PSEUDOTHELPHUSINAE Ortmann, 1893, THELPHUSIDAE Macleay, 1838, and TRICHODACTYLINAE H. Milne Edwards, 1853, by any zoologists who consider *Potamon* Savigny, *Pseudothelphusa* De Saussure, *Thelphusa* Latreille and/or *Trichodactylus* Latreille as belonging to the same family-group taxon) (Name No. 378).

(k) PSEUDOTHELPHUSINAE Ortmann, 1893 (type-genus *Pseudothelphusa* De Saussure, 1857) (not to be given precedence over POTAMIDAE Ortmann, 1896, by any zoologists who consider *Potamon* Savigny and *Pseudothelphusa* De Saussure as belonging to the same family-group taxon) (Name No. 379);

(l) TRICHODACTYLINAE H. Milne Edwards, 1853 (type-genus *Trichodactylus* Latreille, [1828]) (not to be given precedence over POTAMIDAE Ortmann, 1896, by any zoologists who consider *Potamon* Savigny and *Trichodactylus* Latreille as belonging to the same family-group taxon) (Name No. 380).

(5) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Acanthonyx* Hampson, 1902 (a junior homonym of *Acanthonyx* Latreille, 1827) (Name No. 1711);
(b) *Amathia* P. Roux, 1828 (a junior homonym of *Amathia* Lamouroux, 1812) (Name No. 1712);
(c) *Axius* Mulsant, 1850 (a junior homonym of *Axius* Leach, 1815) (Name No. 1713);
(d) *Brachynotus* Kirby, 1837 (a junior homonym of *Brachynotus* De Haan, [1833]) (Name No. 1714);
(e) *Calappa* Fabricius, 1798 (a junior homonym and a junior objective synonym of *Calappa* Weber, 1795) (Name No. 1715);
(f) *Charybdis* Cocco, 1832 (a nomen nudum) (Name No. 1716);
(g) *Clibanarius* Gozis, 1882 (a junior homonym of *Clibanarius* Dana, 1852) (Name No. 1717);
(h) *Cymopolia* P. Roux, 1830 (a junior homonym of *Cymopolia* Lamouroux, 1816) (Name No. 1718);
(i) *Dorynchus* Thomson, 1873 (Ruled under the plenary powers to be an incorrect original spelling for *Dorhynchus*) (Name No. 1719);
(j) *Eriphia* Meigen, 1826 (a junior homonym of *Eriphia* Latreille, 1817) (Name No. 1720);
(k) *Eriphia* Herrich-Schaeffer, 1850–1856 (a junior homonym of *Eriphia* Latreille, 1817) (Name No. 1721);
(l) *Eriphia* Chambers, 1875 (a junior homonym of *Eriphia* Latreille, 1817) (Name No. 1722);
(m) *Eriphis* Latreille, 1817 (an incorrect original spelling for *Eriphia* Latreille, 1817) (Name No. 1723);

(n) *Eurynoma* Latreille, 1829 (an incorrect spelling for *Eurynome* [Leach, 1814]) (Name No. 1724);

(o) *Eurynome* Rafinesque, 1815 (a nomen nudum) (Name No. 1725);

(p) *Eurynome* Chambers, 1875 (a junior homonym of *Eurynome* [Leach, 1814]) (Name No. 1726);

(q) *Eurynone* De Haan, [1839] (an incorrect spelling for *Eurynome* [Leach, 1814]) (Name No. 1727);

(r) *Goniosoma* A. Milne Edwards, 1860 (a junior objective synonym of *Charybdis* De Haan, [1833]) (Name No. 1728);

(s) *Herbstia* Robineau-Desvoidy, 1851 (a junior homonym of *Herbstia* H. Milne Edwards, 1834) (Name No. 1729);

(t) *Ilia* Hartmann, 1881 (a junior homonym of *Ilia* Leach, 1817) (Name No. 1730);

(u) *Latreillia* Robineau-Desvoidy, 1830 (a junior homonym of *Latreillia* P. Roux, 1830) (Name No. 1731);

(v) *Leucosia* Fabricius, 1798 (a junior homonym of *Leucosia* Weber, 1795) (Name No. 1732).

(w) *Leucosia* Rambur, 1866 (a junior homonym of *Leucosia* Weber, 1795) (Name No. 1733);

(x) *Leucosia* Dybowski, 1875 (a junior homonym of *Leucosia* Weber, 1795) (Name No. 1734);

(y) *Leucosides* Rathbun, 1897 (a junior objective synonym of *Leucosia* Weber, 1795) (Name No. 1735);

(z) *Numida* Hope, 1851 (an incorrect spelling for *Munida* Leach, 1820) (Name No. 1736);

(aa) *Ocypoda* Lamarck, 1801 (an incorrect spelling for *Ocypode* Weber, 1795) (Name No. 1737);

(bb) *Ocypode* Fabricius, 1798 (a junior homonym and a junior objective synonym of *Ocypode* Weber, 1795) (Name No. 1738);

(cc) *Palicus* Stål, 1866 (a junior homonym of *Palicus* Philippi, 1838) (Name No. 1739);

(dd) *Philyra* De Haan, [1833] (a junior homonym of *Philyra* Leach, 1817) (Name No. 1740);

(ee) *Philyra* Laporte, 1836 (a junior homonym of *Philyra* Leach, 1817) (Name No. 1741);

(ff) *Plagusia* Jarocki, 1822 (a junior homonym of *Plagusia* Latreille, 1804) (Name No. 1742);

(gg) *Uca* Latreille, 1819 (a junior homonym of *Uca* [Leach, 1814]) (Name No. 1743);

(6) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *diacantha* Latreille, 1825, as published in the binomen *Portunus diacantha* (as suppressed under the plenary powers in (1) (c) (i) above) (Name No. 797);

(b) *globosus* Fabricius, 1787, as published in the binomen *Cancer globosus* (a junior objective synonym of *globus*, *Cancer*, Fabricius, 1775) (Name No. 798);

(c) *globulosa* Bosc, 1801–1802, as published in the binomen *Leucosia globulosa* (a junior objective synonym of *globus*, *Cancer*, Fabricius, 1775) (Name No. 799);

(d) *heterochelos* Lamarck, 1801, as published in the binomen *Ocypoda heterochelos* (a junior objective synonym of *major*, *Cancer vocans*, Herbst, 1782) (Name No. 800);

(e) *sexdentatus* Herbst, 1783, as published in the binomen *Cancer sexdentatus* (a junior objective synonym of *feriatus*, *Cancer*, Linnaeus, 1758) (Name No. 801);

(f) *stirynchus* Leach, 1815, as published in the binomen *Axius stirynchus* (Ruled under the plenary powers to be an incorrect original spelling for *stirhynchus*) (Name No. 802);

(g) *tridens* Herbst, 1790, as published in the binomen *Cancer tridens* (as suppressed under the plenary powers in (1) (c) (ii) above) (Name No. 803);

(h) *tridens* Fabricius, 1798, as published in the binomen *Cancer tridens* (a junior homonym of *tridens*, *Cancer*, Herbst, 1790) (Name No. 804);

(i) *una* [Leach, 1814], as published in the binomen *Uca una* (a junior objective synonym of *major*, *Cancer vocans*, Herbst, 1782) (Name No. 805).

(7) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) CALAPPIDEA De Haan, [1833] (type-genus *Calappa* Weber, 1795) (an incorrect original spelling for CALAPPIDAE) (Name No. 405);

(b) CYMOPOLIIDAE Faxon, 1895 (type-genus *Cymopolia* P. Roux, 1830) (invalid because the name of the type-genus is a junior homonym) (Name No. 406);

(c) LATREILLIDEA Stimpson, 1858 (type-genus *Latreillia* P. Roux, 1830) (an incorrect original spelling for LATREILLIDAE) (Name No. 407);

(d) LEUCOSIADAE Samouelle, 1819 (type-genus *Leucosia* Weber, 1795) (an incorrect original spelling for LEUCOSIIDAE) (Name No. 408);

(e) OCYPODIA Rafinesque, 1815 (type-genus *Ocypode* Weber, 1795) (an incorrect original spelling for OCYPODIDAE) (Name No. 409);

(f) PLAGUSINAE Dana, 1851 (type-genus *Plagusia* Latreille, 1804) (an incorrect original spelling for PLAGUSIINAE) (Name No. 410).

HISTORY OF THE CASE (Z.N.(S.) 1499)

The present case was submitted to the office of the Commission by Dr. L. B. Holthuis in August 1961. Dr. Holthuis' application was sent to the printer on 20 October 1961 and was published on 16 July 1962 in *Bull. zool. Nomencl.* **19** : 232–253. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the Bulletin as well as to the other prescribed serial publications (Constitution Art. 12b; *Bull. zool. Nomencl.* **21** : 184) and to one specialist serial. No objection was received. In two letters to the Secretary (6.xi.62 and 29.xi.62) Dr. Holthuis made the following corrections to his application:

" 1. (: 236, para. 7). In a comment on the present case Mr. W. I. Follett and Miss Lillian J. Dempster quite correctly point out that under the new Code, in the case of multiple original spellings of a scientific zoological name, the correct spelling is decided by the action of the first reviser, and not the first subsequent user as I had it.

The first reviser in the case of *Eriphia* is, as far as I can ascertain, Schulze, Kükenthal, Heider & Hesse, 1929, *Nomencl. anim. -genr. subgenr.* **2** (10) : 1191. In this nomenclator the name *Eriphia* Latreille, 1817, is cited correctly, while under *Eriphis* is mentioned: " *Eriphis* (pro *Eriphia*] Latreille, 1817 ", which in my opinion clearly is an action giving preference to *Eriphia* over *Eriphis.*

2. Miss Janet Haig drew my attention to two corrections that are needed in my application. In the first place the original description of the name *Clibanarius* by Dana is not the one published in 1852—*Proc. Acad. nat. Sci. Philad.* **6** (1) : 6—but that published (in the same year) in *Amer. Journ. Sci. Arts* (2) **13** : 122.

3. Another error pointed out to me by Miss Haig is that the first type selection for the genus *Calcinus* Dana, 1851, is not by Stimpson, 1858, but by Dana, 1852, *Amer. Journ. Sci. Arts* (2) **13** : 122."

Commissioners were informed of these corrections at the time of voting.

DECISION OF THE COMMISSION

On 11 December 1963 Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63) 38 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 247–253. At the close of the prescribed Voting Period on 11 March 1964 the state of the voting was as follows:

Affirmative votes—twenty-five (25), received in the following order: China, Boschma, Hering, Holthuis, Lemche, Mayr, Riley, Miller, Stoll, Jaczewski, Binder, Vokes, Simpson, Brinck, Tortonese, do Amaral, Alvarado, Bonnet, Uchida, Obruchev, Mertens, Forest, Hubbs, Evans, Kraus.

Negative votes—two (2): Ride, Sabrosky.

Voting Papers not returned—one (1): Munroe.

Commissioner Borchsenius returned a late affirmative vote.

The following comments were made by Commissioners in returning their votes:

Dr. Carl L. Hubbs (9.iii.64): " Only the good sense, great care, and collaboration taken in this application cause me to vote " for "; in general, such mass approvals are dangerous. I rather disapprove of correcting spellings (*Dorhynchus*; *stenorhynchus*) but now have no chance to vote against these applications. Such special plenary emendations make it necessary to check the Official Lists as well as original descriptions."

Dr. W. D. L. Ride (9.iii.64): " I regret that I am unable to vote in the affirmative for this as a package-deal since it contains much which will be useful. If it were broken down and re-submitted as separate items I would vote—

Against 7.(1) (a)—The case as made out does not satisfy me that confusion will arise, or stability or universality be upset if the Code is followed.

7.(1) (b)—No case is made out in the application, unless it be understood to be the same as in 7.(1) (a).

7.(5) (i) —follows from 7.(1) (a).

7.(6) (f)—follows from 7.(1) (b).

For—(with necessary amendment to original spelling for *Dorynchus* and *stirynchus*) 7.(2) and 7.(3) (a).

For—the remainder."

Mr. C. W. Sabrosky (11.iii.64): " I am opposed to mass treatment of a list of names involving different matters—correction of spelling, suppression of nomina dubia, exception to the Law of Priority, etc. This is potentially dangerous, even though the application is the result of much careful work, as I am sure it is from the list of distinguished carcinologists involved in the project. Several errors have already come to light, as indicated in the supplemental information.

I would take exception to several items noted in my reading of the application, and might note others if more careful study were possible. I note that a number of the names are admittedly of little importance, and I see no reason why the Commission should have its time taken with such names. In other cases, there is no real problem to which we should address our time and attention.

I am thoroughly opposed to placing nomina nuda on the Official List. Nomenclaturally, they do not exist. I am also opposed to filling the Official Index with junior homonyms and objective synonyms.

Note on Potamonidae: Plenary powers are not needed to protect Potamonidae from Thelphusidae. See article 40a. They would be for the other two names involved, under Article 23d (ii).

pp. 249–251—Does this list of 33 junior homonyms, errors and nomina nuda establish a precedent for including the thousands on thousands of those types of names in entomology on the Official Index? This is going too far. The project on a check list of the Decapoda of the Mediterranean is an admirable one, and needed in many groups, but I see no reason why all of their nomenclatural and zoological decisions must be brought to the attention of the Commission. It is astounding to hear of type-species that were based on composite series, but have existed for 100–140 years without lectotype or restriction. I applaud efforts to clear up this confusion, but see in most cases no reason for the Commission to be involved."

After the end of the Voting Period Dr. Holthuis wrote to the Secretary pointing out that the etymologically correct form for a family-group name based on *Potamon* was Potamidae and not Potamonidae. Consequently Potamidae has been added to the Official List in the Ruling of the present Opinion. During the preparation of the present Opinion it was discovered that *Maia lunulata* Risso, 1816 (type-species of *Acanthonyx* Latreille, 1827) had already been placed on the Official List by the Ruling given in Opinion 522 (List No. 1560).

ORIGINAL REFERENCES

The following are the original references for Generic Names placed on the Official List and Official Index by the Ruling given in the present Opinion:

Acanthonyx Hampson, 1902, *Ann. S. Afr. Mus.* **2** : 318, 323
Acanthonyx Latreille, 1827, *Ency. Méth.* **10** (Ins.) : 698
Achaeopsis Stimpson, 1857, *Proc. Acad. nat. Sci. Philad.* **9** : 219
Achaeus Leach, 1817, *Malac. podophth. Brit.* (16) : text to pl. 22C
Amathia P. Roux, 1828, *Crust. Médit.* (1) : pl. 3
Anamathia Smith, 1885, *Proc. U.S. nat. Mus.* **7** : 493
Anapagurus Henderson, 1886, *Proc. Trans. nat. Hist. Soc. Glasgow* (n. ser.) **1** : 337
Atelecyclus [Leach, 1814], *in* Brewster's *Edinb. Ency.* 7(2) : 430
Axius Leach, 1815, *Trans. Linn. Soc. Lond.* **11** : 335, 343
Axius Mulsant, 1850, *Ann. Soc. Agric. Lyon* (2) **2** (Spec. Col. Securipalpes) : 1002
Brachynotus De Haan, [1833], *in* Siebold, *Fauna japon* (Crust.) (1) : 5
Brachynotus Kirby, 1837, *in* Richardson's *Fauna Bor. Amer.* **4** : 249
Calappa Fabricius, 1798, *Suppl. Ent. syst.* : 309, 345
Calappa Weber, 1795, *Nomencl. ent. Syst. Fabr.* : 92
Calcinus Dana, 1851, *Proc. Acad. nat. Sci. Philad.* **5** : 268
Callinectes Stimpson, 1860, *Ann. Lyc. nat. Hist. New York* **7** : 220
Calocaris Bell, 1846, *Hist. Brit. stalk-eyed Crust.* (5) : 231
Catapaguroides A. Milne Edwards & Bouvier, 1892, *Ann. Sci. nat.*, Paris (Zool.) (7) **13** : 211
Charybdis Cocco, 1832, *Effem. Sci. Lett. Sicil.* **2** : 204
Charybdis De Haan, [1833], *in* Siebold, *Fauna japon.* (Crust.) (1) : 3, 10
Clibanarius Dana, 1852, *Amer. J. Sci. Arts* (2) **13** : 122
Clibanarius Gozis, 1882, *Mitt. Schweiz. entom. Ges.* **6** : 295
Cymonomus A. Milne Edwards, 1880, *Bull. mus. comp. Zool.*, Harvard **8** (1) : 26
Cymopolia P. Roux, 1830, *Crust. Médit.* (5) : pl. 21
Dorhynchus Thomson, 1873, *Depths of the Sea* : 174, 175
Dorynchus Thomson, 1873, an incorrect original spelling for *Dorhynchus* q.v.
Ergasticus Studer, 1883, *Abh.K.-preuss. Akad. Wiss.*, Berlin **1882** (2) : 7
Eriphia Chambers, 1875, *Canad. Ent.* **7** : 55
Eriphia Herrich-Schaeffer, 1850–1856, *Aussereurop. Schmett.* **1** : 16
Eriphia Latreille, 1817, *Nouv. Dict. Hist. nat.* (ed. 2) **10** : 404
Eriphia Meigen, 1826, *Syst. Beschr. zweifl. Ins.* **5** : 206
Eriphis Latreille, 1817, an incorrect original spelling for *Eriphia* q.v.
Ethusa P. Roux, 1830, *Crust. Médit.* (4) : pl. 18
Eurynoma Latreille, 1829, Cuvier's *Règne Anim.* (ed. 2) **4** : 57
Eurynome Chambers, 1875, *Cincinnati Quart. J. Sci.* **2** : 304
Eurynome [Leach, 1814], *in* Brewster's *Edinb. Ency.* **7** (2) : 431
Eurynome Rafinesque, 1815, *Analyse Nature* : 99
Eurynone De Haan, [1839], *in* Siebold, *Fauna japon.* (Crust.) (4) : pl. G
Goniosoma A. Milne Edwards, 1860, *Ann. Sci. nat.*, Paris (Zool.) (4) **14** : 218, 224, 263
Harpilius Dana, 1852, *Proc. Acad. nat. Sci. Philad.* **6** : 17

Herbstia H. Milne Edwards, 1834, *in* Roret's Suites à Buffon, *Hist. nat. Crust.* **1** : 301
Herbstia Robineau-Desvoidy, 1851, *Ann. Soc. ent. France* (2) **9** : 184
Heterocrypta Stimpson, 1871, *Ann. Lyc. nat. Hist. New York* **10** : 102
Heteropanope Stimpson, 1858, *Proc. Acad. nat. Sci. Philad.* **1858** : 35
Ilia Hartmann, 1881, *Cat. Gen.* " *Partula* " : 8
Ilia Leach, 1817, *Zool. Miscell.* **3** : 19, 24
Jaxea Nardo, 1847, *Sinon. moderna Opera Chiereghin* : 4
Latreillia Robineau-Desvoidy, 1830, *Mém. Acad. roy. Sci. Inst. France* **2** : 104
Latreillia P. Roux, 1830, *Crust. Médit.* (5) : pl. 22
Leucosia Dybowski, 1875, *Mém. Acad. Sci. St. Pétersb.* (7) **22** (8) : 36
Leucosia Fabricius, 1798, *Suppl. Ent. syst.*: 313, 349
Leucosia Rambur, 1866, *Cat. syst. Lepid. Andalousie* (2): 267
Leucosia Weber, 1795, *Nomencl. ent. Syst. Fabr.* : 92
Leucosides Rathbun, 1897, *Proc. biol. Soc. Washington* **11** : 160
Medaeus Dana, 1851, *Amer. J. Sci.* (2) **12** : 125
Munida Leach, 1820, *Dict. Sci. nat.* **18** : 52
Munidopsis Whiteaves, 1874, *Amer. J. Sci.* (3) **7** : 212, 213
Myra Leach, 1817, *Zool. Miscell.* **3** : 19, 23
Nematopagurus A. Milne Edwards & Bouvier, 1892, *Ann. Sci. nat.*, Paris (Zool.) (7) **3** : 209
Numida Hope, 1851, *Cat. Crost. Ital.* : 14
Ocypoda Lamarck, 1801, *Syst. Anim. sans Vertèbr.* : 149
Ocypode Fabricius, 1798, *Suppl. Ent. syst.* : 312, 347
Ocypode Weber, 1795, *Nomencl. ent. Syst. Fabr.* : 92
Pachygrapsus Randall, 1840, *J. Acad. nat. Sci. Philad.* **8** : 126
Paguristes Dana, 1851, *Proc. Acad. nat. Sci. Philad.* **5** : 268, 269, 271
Palicus Philippi, 1838, *Jahresber. Ver. Naturk. Cassel* **2** : 11
Palicus Stål, 1866, *Hemipt. Afric.* **4** : 120
Paromola Wood-Mason & Alcock, 1891, *Ann. Mag. nat. Hist.* (6) **7** : 267
Philyra De Haan, [1833], *in* Siebold, *Fauna japon.* (Crust.) (1) : 5
Philyra Laporte, 1836, *Rev. ent.* **4** (2) : 53
Philyra Leach, 1817, *Zool. Miscell.* **3** : 18, 22
Pilumnopeus A. Milne Edwards, 1867, *Ann. Soc. ent. France* (4) **7** : 277
Plagusia Jarocki, 1822, *Zoologiia* **4** : 295
Plagusia Latreille, 1804, *Nouv. Dict. Hist. nat.* **24** : 125
Potamon Savigny, 1816, *Mém. Anim. sans Vertèbr.* **1** : 107
Richardina A. Milne Edwards, 1881, *C. R. Acad. Sci.*, Paris **93** : 933
Rochinia A. Milne Edwards, 1875, *Rech. zool. Hist. Faune Amér. centr. Mexique* **5** (3) : 86
Uca Latreille, 1819, *Nouv. Dict. Hist. nat.* (ed. 2) **35** : 96
Uca [Leach, 1814], *in* Brewster's *Edinb. Ency.* 7 (2) : 430
Xaiva Macleay, 1838, *in* Smith's *Illustr. Zool. S. Africa* (Invert.) : 62

The following are the original references for specific names placed on the Official List and Index in the Ruling of the Present Opinion.

asper, *Cancer*, Pennant, 1777, *Brit. Zool.* (ed. 4) **4** : 8
biguttatus, *Portunus*, Risso, 1816, *Hist. nat. Crust. Nice* : 31

caronii, *Cymopolia*, P. Roux, 1830, *Crust. Médit.* (5) : pl. 21
ceratophthalmus, *Cancer*, Pallas, 1772, *Spicil. Zool.* **9** : 83
clibanarius, *Cancer*, Herbst, 1791, *Versuch Naturgesch. Krabben Krebse* **2** (1) : 20
clouei, *Ergasticus*, Studer, 1883, *Abh. K. -preuss. Akad. Wiss.*, Berlin **1882** (2) : 7, 8
condyliatus, *Cancer*, Fabricius, 1787, *Mantissa Ins.* **1** : 324
cranchii, *Achaeus*, Leach, 1817, *Malac. podophth. Brit* (16) : text to pl. 22C
craniolaris, *Cancer*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 626
crassipes, *Pachygrapsus*, Randall, 1840, *J. Acad. nat. Sci. Philad.* **8** : 127
curvirostra, *Munidopsis*, Whiteaves, 1874, *Amer. J. Sci.* (3) **7** : 212
cuvieri, *Dorippe*, Risso, 1816, *Hist. nat. Crust. Nice* : 35
depressus, *Cancer*, Fabricius, 1775, *Syst. Ent.* : 406
diacantha, *Portunus*, Latreille, 1825, *Ency. méth.* **10** (Ins.) : 190
elegans, *Latreillia*, P. Roux, 1830, *Crust. Médit.* (5) : pl. 22
feriatus, *Cancer*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 627
fluviatilis, *Cancer*, Herbst, 1785, *Versuch Naturgesch. Krabben Krebse* **1** (6) : 183
fugax, *Leucosia*, Fabricius, 1798, *Suppl. Ent. syst.* : 351
glabra, *Heteropanope*, Stimpson, 1858, *Proc. Acad. nat. Sci. Philad.* **1858** : 35
globosus, *Cancer*, Fabricius, 1787, *Mantissa Ins.* **1** : 315
globulosa, *Leucosia*, Bosc, 1801–1802, *in* Castel's Buffon, *Hist. nat. Crust.* **1** : 238
globus, *Cancer*, Fabricius, 1775, *Syst. Ent.* : 401
gracilipes, *Rochinia*, A. Milne Edwards, 1875, *Rech. zool. Hist. Faune Amér. centr. Mexique* **5** (3) : 86, pl. 18, fig. 1
granulata, *Cryptopodia*, Gibbes, 1850, *Proc. amer. Assoc. Adv. Sci.* **3** : 173
granulatus, *Cancer*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 627
heterochelos, *Ocypoda*, Lamarck, 1801, *Syst. Anim. sans Vertèbr.* : 150
hirtus, *Paguristes*, Dana, 1851, *Proc. Acad. nat. Sci. Philad.* **5** : 272
laevis, *Pagurus*, Bell, 1845, *Hist. Brit. stalk-eyed Crust.* (4) : 184
longicornis, *Nematopagurus*, A. Milne Edwards & Bouvier, 1892, *Ann. Sci. nat.*, Paris (Zool.) (7) **13** : 210
lutescens, *Harpilius*, Dana, 1852, *Proc. Acad. nat. Sci. Philad.* **6** : 25
macandreae, *Calocaris*, Bell, 1846, *Hist. Brit. stalk-eyed Crust.* (5) : 233
major, *Cancer vocans*, Herbst, 1782, *Versuch Naturgesch. Krabben Krebse* **1** (1) : 83
mascarone, *Ethusa*, Herbst, 1785, *Versuch Naturgesch. Krabben Krebse* **1** (6) : 191
microps, *Catapaguroides*, A. Milne Edwards & Bouvier, 1892, *Ann. Sci. nat.*, Paris (Zool.) (7) **13** : 211
nocturna, *Jaxea*, Nardo, 1847, *Sinon. moderna Opera Chiereghin* : 4
nucleus, *Cancer*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 627
ornatus, *Medaeus*, Dana, 1852, *Proc. Acad. nat. Sci. Philad.* **6** : 76
potamios, *Cancer*, Olivier, 1803–1804, *Voyage Empire Othoman* **4** : 240
quadratus, *Cymonomus*, A. Milne Edwards, 1880, *Bull. Mus. comp. Zool.*, Harvard **8** (1) : 26
rissoana, *Amathia*, P. Roux, 1828, *Crust. Médit.* (1) : pl. 3
rotundatus, *Cancer*, Olivi, 1792, *Zool. Adriat.* : 47
rugosus, *Pagurus*, Fabricius, 1775, *Syst. Ent.* : 412

sapidus, *Callinectes*, Rathbun, 1896, *Proc. U.S. nat. Mus.* **18** : 352
serratifrons, *Ozius* (?), Kinahan, 1858, *J. roy. Dublin Soc.* **1** (3) : 113
sexdentatus, *Cancer*, Herbst, 1783, *Versuch Naturgesch. Krabben Krebse* **1** (2–5) : 153
sexdentatus, *Goneplax*, Risso, 1827, *Hist. nat. princip. Prod. Europ. mérid.* **5** : 13
spinicincta, *Richardina*, A. Milne Edwards, 1881, *C. R. Acad. Sci.*, Paris **93** : 933
spinulosus, *Achaeopsis*, Stimpson, 1857, *Proc. Acad. nat. Sci. Philad.* **9** : 219
stirhynchus, *Axius*, Leach, 1815, *Trans. Linn. Soc. Lond.* **11** : 343
stirynchus, *Axius*, Leach, 1815, an incorrect original spelling for *stirhynchus* q.v.
thomsoni, *Dorhynchus*, Thomson, 1873, *Depths of the Sea:* 174, 175
tibicen, *Cancer*, Herbst, 1791, *Versuch Naturgesch. Krabben Krebse* **2** (1) : 25
tridens, *Cancer*, Herbst, 1790, *Versuch. Naturgesch. Krabben Krebse* **1** (8) : 267
tridens, *Cancer*, Fabricius, 1798, *Suppl. Ent. syst.* : 340
una, *Uca*, [Leach, 1814], *in* Brewster's *Edinb. Ency.* **7** (2) : 430
verrucosus, *Cancer*, Forskål, 1775, *Descr. Anim.* : 93

The following are the original references for family-group names placed on the Official List and Index by the Ruling given in the present Opinion:

ATELECYCLIDAE Ortmann, 1893, *Zool. Jahrb.* (Syst.) **7** : 27
AXIIDAE Huxley, 1879, *Proc. zool. Soc. Lond.* **1878** : 785
CALAPPIDAE De Haan, [1833], *in* Siebold, *Fauna japon.* (Crust.) (1) : ix
CALAPPIDEA De Haan, 1833, an incorrect original spelling for CALAPPIDAE q.v.
CYMOPOLIIDAE Faxon, 1895, *Mem. Mus. comp. Zool.*, Harvard **18** : 38
ILIINAE Stimpson, 1870, *Bull. Mus. comp. Zool.*, Harvard **2** : 155
LATREILLIIDAE Stimpson, 1858, *Proc. Acad. nat. Sci. Philad.* **1858** : 226
LATREILLIDEA Stimpson, 1858, an incorrect original spelling for LATREILLIIDAE q.v.
LEUCOSIADAE Samouelle, 1819, an incorrect original spelling for LEUCOSIIDAE q.v.
LEUCOSIIDAE Samouelle, 1819, *Entom. useful Compendium* : 91
OCYPODIA Rafinesque, 1815, an incorrect original spelling for OCYPODIDAE q.v.
OCYPODIDAE Rafinesque, 1815, *Analyse Nature* : 96
PALICIDAE Rathbun, 1898, *Bull. Lab. nat. Hist. State Univ. Iowa* **4** : 280
PLAGUSIINAE Dana, 1851, *Proc. Acad. nat. Sci. Philad.* **5** : 247, 252
PLAGUSINAE Dana, 1851, an incorrect original spelling for PLAGUSIINAE q.v.
POTAMIDAE Ortmann, 1896, *Zool. Jabrb.* (Syst.) **9** : 445
PSEUDOTHELPHUSINAE Ortmann, 1893, *Zool. Jahrb.* (Syst.) **7** : 487
TRICHODACTYLINAE H. Milne Edwards, 1853, *Ann. Sci. nat.*, Paris (Zool.) (3) **20** : 163

The following are the original references for the designation of type-species for genera concerned in the present Ruling:

For *Anapagurus* Henderson, 1886: Holthuis, 1962, *Bull. zool. Nomencl.* **19** : 242
For *Calappa* Weber, 1795: Latreille, 1810, *Consid. gén. partic. Crust. Arachn. Ins.* : 95, 422
For *Calcinus* Dana, 1851: Stimpson, 1858, *Proc. Acad. nat. Sci. Philad.* **1858** : 234
For *Catapaguroides* A. Milne Edwards & Bouvier, 1892: Holthuis, 1962, *Bull. zool. Nomencl.* **19** : 243
For *Charybdis* De Haan, [1833]: Glaessner, 1929, *Fossil. Cat. Anim.* **41** : 113

For *Eriphia* Latreille, 1817: H. Milne Edwards, 1837, *in* Cuvier's *Règne Anim.* (Discip. ed.) **18** : pl. 14, fig. 1

For *Ethusa* P. Roux, 1830: Fowler, 1912, *Ann. Rep. New Jersey State Mus.* **1911** : 590

For *Heteropanope* Stimpson, 1858: Balss, 1933, *Capita Zool.* **4** (3) : 32

For *Leucosia* Weber, 1795: Holthuis, 1959, *Rumphius Memorial Volume* : 106

For *Ocypode* Weber, 1795: Latreille, 1810, *Consid. gén. partic. Crust. Arachn. Ins.* : 95, 422

For *Pachygrapsus* Randall, 1840: Kingsley, 1880, *Proc. Acad. nat. Sci. Philad.* **1880** : 198

For *Paguristes* Dana, 1851: Stimpson, 1858, *Proc. Acad. nat. Sci. Philad.* **1858** : 235

For *Philyra* Leach, 1817: H. Milne Edwards, 1837, *in* Cuvier's *Règne Anim.* (Discip. ed.) **18** : pl. 24, fig. 4

For *Pilumnopeus* A. Milne Edwards, 1867: Balss, 1933, *Capita Zool.* **4** (3) : 33, 34

For *Plagusia* Latreille, 1804: Latreille, 1810, *Consid. gén. partic. Crust. Arachn. Ins.* : 96, 422

CERTIFICATE

I certify that the votes cast on Voting Paper (63) 38 were cast as set out above, that the proposals contained in that Voting Paper have been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 712.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
12 *August* 1964

COMMENT ON THE PROPOSED DESIGNATION OF A NEOTYPE FOR *COENONYMPHA OCHRACEA* EDWARDS, 1861. Z.N.(S.) 1607

(see volume 20, pages 447–448)

By Cyril F. dos Passos (*Mendham, New Jersey, U.S.A.*)

I have studied the application of Mr. F. Martin Brown proposing that the Commission designate a neotype under the plenary powers for *Coenonympha ochracea* Edwards, 1861, as well as his more detailed paper entitled "A neotype for *Coenonympha ochracea* Edwards, (1861)" published in the 1963 Entomological News, volume 74, pp. 211–219 and favor action by the Commission as requested by Brown.

Perhaps at the same time it would be appropriate for the Commission to set aside the designation of a lectotype by F. H. Chermock and P. M. Chermock *in* Knudson and Post (Butterflies of Bottineau County, 1963, North Dakota Insects—Publication No. 2, p. 27) for *ochracea* and the designation of the type locality as the West Coast of Lake Winnipeg, north of McCreary, Manitoba as not having been made in accordance with the provisions of the International Code of Zoological Nomenclature (1961, Chapter XVI, pages 75–83, Articles 74 and 75). The specimen selected by those authors is the ♀ syntype referred to by Brown in his application.

OPINION 713

RANA FASCIATA SMITH, 1849 (AMPHIBIA): ADDED TO THE OFFICIAL LIST WITH SUPPRESSION OF *RANA FASCIATA* BURCHELL, 1824, UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following specific names are hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy:

(a) *fasciata* Burchell, 1824, as published in the binomen *Rana fasciata*;

(b) all other uses of the specific name *fasciata*, in the combination *Rana fasciata* prior to that by Smith, 1849.

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *fasciata* Smith, 1849, as published in the binomen *Rana fasciata*, as interpreted by the specimen designated as neotype of *Rana fasciata* Burchell, 1824, by Parker & Ride, 1962 (a lectotype) (Name No. 2042);

(b) *grayi* Smith, 1849, as published in the binomen *Rana grayi*, as interpreted by the lectotype designated by Parker & Ride, 1962 (Name No. 2043).

(3) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *fasciata* Burchell, 1824, as published in the binomen *Rana fasciata* (as suppressed under the plenary powers in (1) (a) above) (Name No. 806);

(b) *fasciata*, all other uses of, in the combination *Rana fasciata* prior to that by Smith 1849 (as suppressed under the plenary powers in (1) (b) above) (Name No. 807).

HISTORY OF THE CASE (Z.N.(S.) 1253)

The present case was first submitted to the office of the Commission in September 1957. An agreed application was finally sent to the printer on 31 January 1962 and published on 10 September 1962 in *Bull. zool. Nomencl.* **19** : 290–292. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (Constitution Art. 12b; *Bull. zool. Nomencl.* **21** : 184) and to two herpetological serials. The further history of the case is explained in the note sent to Commissioners with Voting Paper (63) 40 and reproduced below:

" Dr. H. W. Parker and Dr. W. D. L. Ride (*Bull. zool. Nomencl.* **19** : 290–292) have made application to the Commission for the preservation of the name *Rana fasciata* in its accustomed sense by designation of a neotype for Burchell's species. (Alternative A). This application was supported by Dr. J. C. Poynton (*Bull. Zool. Nomencl.* **20** : 255).

" Professor Hobart M. Smith, whilst in agreement with the need to conserve the name *Rana fasciata* for the species to which it has been applied for over 100 years, disagrees with the proposed method of achieving this. Professor Smith proposes instead that the Commission should suppress the name *Rana fasciata*

Burchell, 1824, together with all other uses of the same name prior to that by Andrew Smith 1949, and that the proposed neotype for Burchell's species (one of Andrew Smith's specimens) should be designated as lectotype of *Rana fasciata* Andrew Smith, 1849 (Alternative B). The exact proposals needed to achieve this are set out below:

(1) to suppress under the plenary powers, for the purposes of both the Law of Priority and the Law of Homonymy, the specific name *fasciata* Burchell, 1824, as published in the binomen *Rana fasciata*, and all other uses of the specific name *fasciata*, in the combination *Rana fasciata* prior to that by Smith, 1849;

(2) to place the following specific names on the Official List of Specific Names in Zoology;

(a) *fasciata* Smith, 1849, as published in the binomen *Rana fasciata* (as interpreted by the specimen designated as neotype of *R. fasciata* Burchell, 1824, by Parker & Ride, 1962) (a lectotype)

(b) *grayi* Smith, 1849, as published in the binomen *Rana grayi* (as interpreted by the lectotype designation by Parker & Ride, 1962)

(3) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology:

(a) *fasciata* Burchell, 1824, as published in the binomen *Rana fasciata* (as suppressed under the plenary powers in (1) above)

(b) *fasciata*, all other uses of, in the combination *Rana fasciata* prior to that by Smith, 1829 (as suppressed under the plenary powers in (1) above)."

DECISION OF THE COMMISSION

On 11 December 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63) 40, in Part 1, either for or against the use of the plenary powers to preserve the specific name *Rana fasciata* in its accustomed sense, and in Part 2, for either Alternative A or Alternative B, as set out in the accompanying note (see above). At the close of the prescribed Voting Period on 11 March 1964, the state of the voting was as follows:

Part 1. Affirmative votes—twenty-seven (27), received in the following order: China, Boschma, Hering, Holthuis, Lemche, Mayr, Riley, Miller, Stoll, Binder, Vokes, Simpson, Brinck, Jaczewski, Tortonese, do Amaral, Alvarado, Bonnet, Uchida, Obruchev, Mertens, Forest, Hubbs, Ride, Evans, Kraus, Sabrosky.

Negative votes—none (0).

Voting Papers not returned—one (1): Munroe.

Part 2. For Alternative A—thirteen (13): China, Boschma, Hering, Holthuis, Mayr, Riley, Tortonese, Bonnet, Mertens, Ride, Evans, Kraus, Sabrosky.

For Alternative B—fourteen (14): Lemche, Miller, Stoll, Binder, Vokes, Simpson, Brinck, Jaczewski, do Amaral, Alvarado, Uchida, Obruchev, Forest, Hubbs.

Commissioner Borchsenius returned a late affirmative vote in favour of Alternative A.

In returning his Voting Paper Dr. Carl Hubbs made the following comment:

" As I have strong feelings on the alternative solutions that you so properly submit for voting, I want to express my emphatic support for the use of the plenary powers to preserve the customary use of the specific name *Rana fasciata*, and particularly to express my emphatic approval of the solution (B) proposed by Hobart M. Smith. His solution is the same as Follett and I have favored in similar cases, and will propose in an application to preserve current and virtually universal but technically invalid usages for certain important Californian fishes.

" Surely when a well-known species is found to have long been passing under a technically inadequate name, the best solution is to select a usage, preferably an early usage, that appears definitely to agree with current opinion, then to have the name with the author of that usage designated by plenary powers as the valid name, with all earlier usages suppressed. Thus the familiar name is retained, with a change only in authorship and date. This course is ever so much more logical, and more likely to remain effective, than the devious method of applying the name, with the first author, to a species unknown to that author. The species name is the important element."

ORIGINAL REFERENCES

The following are the original references for names placed on the Official List and Index by the Ruling given in the present Opinion:

fasciata, *Rana*, Burchell, 1824, *Travels Interior South Africa* **2** : 32
fasciata, *Rana*, A. Smith, 1849, *Illust. Zool. S. Africa* **2** : pl. 78, figs. 1, 1a–c
grayi, *Rana*, A. Smith, 1849, *Illustr. Zool. S. Africa* **2** : pl. 78, figs. 2, 2a–c

CERTIFICATE

I certify that the votes cast on Voting Paper (63) 40 were cast as set out above, that the proposal contained as Alternative B in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 713.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
13 *August* 1964

COMMENTS ON THE PROPOSED PRESERVATION OF *AMAUROBIUS* KOCH, 1837, AND *COELOTES* BLACKWALL, 1841. Z.N.(S.) 1625

(see this volume, pages 150–153)

By Richard L. Hoffman (*Radford College, Virginia, U.S.A.*)

Although under normal circumstances I tend to favor strict application of the rules of priority at least as regards most arthropod groups, I do feel that in this particular case, the authors have presented a special case worthy of individual attention and exception to the rules, and I therefore strongly support all of the actions proposed in paragraph 13 of the paper cited.

By B. J. Kaston (*Central Connecticut State College, New Britain, Connecticut, U.S.A.*)

I agree wholeheartedly with the views of H. W. Levi and O. Kraus and have always used the names in the same sense that they are indicating as desirable.

OPINION 714

MÖRCH, 1852–53, *CATALOGUS CONCHYLIORUM:* VALIDATED UNDER THE PLENARY POWERS WITH THE DESIGNATION OF A TYPE-SPECIES FOR *PSEUDAMUSSIUM* MÖRCH, 1853 (PELECYPODA)

RULING.—(1) Under the plenary powers:

(a) the work of Mörch, 1852–1853, *Catalogus Conchyliorum quae reliquit D. Alphonso D'Aguirra et Gadea Comes de Yoldi*, Pts. I & II, Hafniae, is hereby validated in spite of the fact that this work was not published for the purposes of zoological nomenclature:

(b) all designations of type-species for the generic name *Pseudamussium* Mörch, 1853, made prior to the present Ruling are hereby set aside, and the nominal species *Pecten septemradiatus* Müller, 1776, is hereby designated to be type-species of that genus.

(2) The generic name *Pseudamussium* Mörch, 1853 (gender : neuter), type-species, by designation under the plenary powers in (1)(b) above, *Pecten septemradiatus* Müller, 1776, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1650.

(3) The specific name *septemradiatus* Müller, 1776, as published in the binomen *Pecten septemradiatus* (type-species of *Pseudamussium* Mörch, 1853) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2044.

(4) The following entry is hereby made on the Official List of Works Approved as Available for Zoological Nomenclature with the Title Number 41.

Mörch (O.A.L.), 1852–1853, *Catalogus Conchyliorum quae reliquit D. Alphonso D'Aguirra et Gadea Comes de Yoldi* Hafniae. Pts. I, II.

HISTORY OF THE CASE (Z.N.(S.) 1501)

The present case was submitted to the office of the Commission by Dr. T. Soot-Ryen in September 1961. Dr. Soot-Ryen's application was sent to the printer on 20 October 1961 and was published on 16 July 1962 in *Bull. zool. Nomencl.* **19** : 254–256. Public notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (Constitution Art. 12b; *Bull. zool. Nomencl.* **21** : 184) and to two malacological serials. The proposals were supported by Dr. Henning Lemche and Dr. Myra Keen (*Bull. zool. Nomencl.* **20** : 164).

DECISION OF THE COMMISSION

On 11 December 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)39 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 255, and a supplementary proposal that the title of Mörch's work be added to the Official List of Works Approved as Available for Zoological Nomenclature. At the close of the prescribed Voting Period on 11 March 1964 the state of the voting was as follows:

Affirmative votes—twenty-five (25), received in the following order: China, Boschma, Hering, Holthuis, Lemche, Mayr, Riley, Miller, Stoll, Binder, Jaczewski, Vokes, Brinck, Tortonese, Alvarado, Bonnet, Uchida, Obruchev, Mertens, Forest, Hubbs, Ride, Evans, Kraus, Sabrosky.

Negative votes—two (2); Simpson, do Amaral.

Voting Papers not returned—one (1): Munroe.

Commission Borchsenius returned a late affirmative vote. The following comments were made by Commissioners in returning their votes:

Dr. Per Brinck (23.i.64): From a principle point of view, I think sale catalogues with limited distribution should not be available for the purposes of zoological nomenclature. In this particular case I do accept the proposal, however, as numerous supraspecific names in the catalogue are in use today and as I take it for granted that there will be no confusion.

Dr. G. G. Simpson (23.i.64). 1. The validation of a work known not to have been published for purposes of nomenclature is a dangerous precedent. 2. There is no showing that names dated from Mörch are in fact in general usage, or that names in general usage would in fact be changed if Mörch's catalogue were not validated.

Dr. Carl L. Hubbs (9. iii.64): I have consulted Dr. Joshua L. Baily on this proposal. He knows no objection to the listing of *Pseudamussium* nor for the validation of the Mörch *Catalogus*, says that the names of Mörch are in current use, and recommends a " for " vote.

Original References

The following are the original references for names placed on the Official Lists by the Ruling given in the present Opinion:

Pseudamussium Mörch, 1853, *Catalogus Conchyliorum* (2) : 59
septemradiatus, *Pecten*, Müller, 1776, *Zool. dan. Prodr.* : 248

CERTIFICATE

I certify that the votes cast on Voting Paper (63)39 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 714.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
14 *August* 1964

LYGAEUS QUADRATUS FABRICIUS 1798 (INSECTA, HEMIPTERA): PROPOSED DESIGNATION OF A NEOTYPE UNDER THE PLENARY POWERS. Z.N.(S.) 1560

By G. G. E. Scudder (*Department of Zoology, University of British Columbia, Vancouver* 8, *B.C., Canada*) and E. Wagner (*Hamburg-Lagenhorn* 1, *Moorreye* 103, *Germany*)

The purpose of this application is to clarify the identity of the species *Lygaeus quadratus* Fabricius 1798.

2. Fabricius in 1798 (*Suppl. ent. Syst.* : 232) described the Lygaeid *Lygaeus quadratus* as follows: " thorace cinereo: macula antica nigra; elytris cinereis: macula postica nigra; tibiis rufis ". This description is vague and was based on material that had been collected near Paris by Bosc d'Antic.

3. Coquebert (1799, *Ill. icon. ins. Mus. paris*, ed. J. C. Fabricius **1** : 37, tab. 9, fig. 12) supposedly figured the type of *Lygaeus quadratus* in his illustrations of the Fabricius type material in Paris.

4. In the first few years after its description, *Lygaeus quadratus* was transfered to various genera, and Stål (1872, *Öfv. K. svensk. Vetensk.-Akad. Förhandl.* 1872(7) : 57) included it in his new genus *Xanthochilus*, the latter in more recent literature having been considered as a subgenus of *Rhyparochromus* Hahn, 1826. The early systematic changes and literature are adequately covered by Oshanin (1912, *Ann. Mus. zool. St. Petersbourg* 11–14 : 1 : 354): we may note here that *L. quadratus* F. is the type species of *Xanthochilus* Stål.

5. Until relatively recently, most European hemipterists have been consistent in their interpretation of *L. quadratus* F., viz. Stichel (1925–38, *Illustrierte Bestimmungstabellen der deutschen Wanzen:* 89, fig. 248), Hedicke (1935, *Die Tierwelt Mitteleuropas* **4**(3) *Insekten* **1**. Heteroptera : 10, 91), Kiritschenko (1951, *Opred. Faun. U.S.S.R.* **42** : 286), etc. These interpreted *quadratus* to be the same as the species figured by Coquebert. This same species, however, was described as *Rhyparochromus quadratus* var. *immaculatus* Royer 1919 (*Bull. Assoc. Nat. Vall. Loing* **2** : 38) and *Rhyparochromus brevirostris* Ribaut 1920 (*Bull. Soc. Hist. nat. Toulouse* **48** : 68).

6. Reuter (1885, *Rev. ent. Caen* **4** : 227) applied the name *quadratus* to a species that he considered to be the same as *L. quadratus* Fabricius, but this was subsequently described as a new species by Horvath in 1911 under the name *omissus* (*Ann. Mus. nat. Hung.* **9** : 582): this species will not be considered further since it has no bearing on the present problem.

7. In the course of a revision of the genus *Rhyparochromus*, Wagner (1955, *Acta ent. Mus. nat. Prague* **30** : 279) discovered this conflicting interpretation of *quadratus*: the Reuter concept of *quadratus* F. was not the same as the Stål concept of this species. Wagner examined the specimen considered as type of *Lygaeus quadratus* Fabricius 1798, located in Paris, and stated that it was conspecific with a third species, namely *Trapezonotus dispar* Stål 1872 (*Öfv. K. svensk. Vetensk.-Akad. Förhandl.* 1872(7) : 56) and that Stål and most authors

had misinterpreted the former species: *L. quadratus* auct. nec. F. was stated to be synonymous with *Rhyparochromus immaculatus* Royer (= *Rhyparochromus brevirostris* Ribaut).

8. Since the above synonymy results in considerable taxonomic rearrangement and the introduction of new names, and since Coquebert appears to have figured a species not conspecific with the type (according to Wagner) whilst in Paris in 1960, Scudder undertook to investigate this situation further in connection with his revision of the world genera of Rhyparochrominae. Seidenstucker (1963, *Acta ent. Mus. nat. Prague* **35** : 427) has recently also considered this problem and has again applied the name *Lygaeus quadratus* F. to the species *Rhyparochromus immaculatus* Royer: Seidenstucker considers the figure in Coquebert to clearly illustrate the type of *quadratus* F. and suggests that the type-specimen in Paris is incorrectly labelled.

9. Since the discussion in the present problem involves the identity of two species, namely *quadratus* sensu Wagner 1955 and *quadratus* sensu Stål, it is helpful to have details on their distinguishing characters. The following key will serve to separate the two species: the characters have been taken from specimens in the authors' collections and the Stål collection in Stockholm.

10. Key to separate *quadratus* sensu Wagner and *quadratus* sensu Stål:

(i) Membrane pale with a central black longitudinal streak and with black veins; pronotum with three pale spots on anterior margin and posterior lobe near postero-lateral angles with obscure longitudinal fuscous streaks, lateral margin with pale carina rather wide and widest at level of dorsal impression; spiracles on abdominal segments III and IV dorsal .. .. *quadratus* sensu Stål

(ii) Membrane fuscous with pale veins; pronotum without pale spots on anterior margin and without black streaks on posterior lobe, lateral margin with pale carina narrow and not expanded at level of dorsal impression; spiracles on abdominal segment IV only, dorsal *quadratus* sensu Wagner

11. With the aid of the above key, it is possible to establish the following points:

(*a*) The specimen labelled " TYPE " of *Lygaeus quadratus* Fabricius 1798 located in Box 43 of the Amyot collection in the Museum National d'Histoire Naturelle, Paris, is identical with *quadratus* sensu Wagner and is not the same as *quadratus* sensu Stål.

(b) The figure of *Lygaeus quadratus* in Coquebert agrees with *quadratus* sensu Stål and not *quadratus* sensu Wagner.

(c) A specimen in the Kiel collection of Fabricius standing under " *quadratus* F." and labelled " *quadratus* ", apparently in Fabricius' handwriting, agrees perfectly with *quadratus* sensu Stål.

(d) In the Paris collection of Amyot, which contains many of the specimens from the collection of Louis Auguste Guillaume Bosc d'Antic described by Fabricius, in 1960 there was no specimen of *quadratus* sensu Stål labelled as *quadratus* in Fabricius' handwriting. However, there were other specimens in the collection labelled *quadratus*, apparently in the handwriting of Fabricius, but these were not conspecific with either *quadratus* sensu Stål or *quadratus* sensu Wagner.

(e) Specimens in the Stål collection at the Naturhistoriska Riksmuseum, Stockholm, labelled by Stål as *quadratus* and *dispar* (= *quadratus* sensu Wagner), are not confused.

12. It is concluded that Fabricius labelled several different species *quadratus*, and that perhaps the Bosc material, when placed in the Amyot collection, was split up and placed under different species. Certainly, Coquebert figures a species belonging to the genus *Xanthochilus* Stål and the specimen in Paris now labelled type belongs to *Trapezonotus* Stål.

13. We must assume that a mistake has been made in the selection of the type specimen of *Lygaeus quadratus* Fabricius 1798. Undoubtedly the type label must have been placed on the specimen in Paris subsequent to any description: the type concept was not evolved in 1798. Prior to this labelling of a type, perhaps the specimen used for the description by Fabricius and that figured by Coquebert had been lost.

14. Summarizing, it seems obvious that there has been a misidentification of the type.

15. It is necessary to reject the specimen in Paris now labelled as type and to select a neotype which preserves the name *quadratus* as used by Stål and the majority of workers over the past 80 years.

16. The International Commission on Zoological Nomenclature is therefore asked:

(a) to use its plenary powers to reject the type specimen of *Lygaeus quadratus* Fabricius 1798 at present labelled as such in the Paris Museum.

(b) to place the specific name *quadratus* Fabricius 1798, as published in the binomen *Lygaeus quadratus* Fabricius 1798, on the Official List of Specific Names in Zoology, this to be interpreted in future by reference to the neotype here selected.

17. Selection of neotype of *Lygaeus quadratus* Fabricius 1798.

A neotype of *Lygaeus quadratus* Fabricius 1798 is here selected and will be placed in the Museum National d'Histoire Naturelle, Paris. It is a male specimen from Northern Germany glued to a card and bearing two labels as follows: one of white paper with the printed data " Hannover, Neu-Darchau, 22.7.35 " and the other of red paper with the information " Neotype of Lygaeus quadratus F., Scudder and Wagner 1964 ".

A full description and figure of *quadratus* F. is given under the name *Rhyparochromus immaculatus* Royer by Wagner (1961, *Deut. ent. Zeit.*, N.F. **8** : 96–97, figs. 10e, 11d and 12f).

SARDINA PILCHARDUS (WALBAUM, 1792): PROPOSED PRESERVATION AS THE NAME FOR THE EUROPEAN SARDINE (PISCES). Z.N.(S.) 1614

By Alwyne Wheeler (*British Museum* (*Natural History*), *London*)

Sardina pilchardus (Walbaum, 1792) has been the name accepted for the European Sardine or Pilchard by the overwhelming majority of ichthyologists and fishery biologists since the revision of the clupeid fishes by Regan (1916, *Ann. Mag. nat. Hist.* (8) **18** : 1–19). However, a few workers have used an earlier alleged binominal name *Arengus minor* . . . Cornide, 1788. The object of the present application is to ask the Commission to reject for nomenclatural purposes the work of Cornide, J., 1788, entitled Ensayo de una historia de los Peces . . . de la costa de Galicia, . . . [264 pp.], [Corunna]. The intention of this action is to secure the availability of the generic name *Sardina* Antipa, 1904 (*Anz. Akad. Wiss. Wien* **41** : 302), and of the specific name *pilchardus* as used in the combination *Clupea pilchardus* by Walbaum, J., 1792 (*Artedi Ichthyologia* **3** : 38). The purpose of the application to suppress the work of Cornide (1788) is to seek an official ruling that any new names in this work are not binominal in accordance with Article 11 (c). A brief statement of the facts follows.

2. The work of Cornide (1788) follows the arrangement of the genera and species of Linnaeus (1766, *Systema Naturae*, 12th edition). On page 91 under the Spanish name Sardina, and before the pages devoted to the genus *Clupea*, Cornide gives a brief diagnosis of the fish, as follows, " Sp. 1. Arengus minor maxillis aequalibus ". In the discussion (page 92) he concluded (correctly at that date) that there was no valid name for the European Sardine, which differed from the " Arenque " (Herring, *Clupea harengus* Linnaeus, 1758) of northern Europe in several ways, and he therefore proposed to call it " Arengus minor . . . ". This name is used in both the index to the vernacular names under Sardina (page 236) and in the Latin name index under Arengus (page 246).

3. In the indices to the work, however, the names employed in the majority of cases appear to be binominal, but this is because the indices comprise the first two words of the diagnoses. Occasional three word entries in the index appear, viz. " Clupea alosa parva, Echinus ovarius mar[inus], Concha venerea cyp[rea], Gadus dipteryg[ius] imb[erbis] ", which lends support to the view that even the indices to this work are not consistently binominal. In addition, the last example " Gadus dipteryg[ius] imb[erbis] " forms the first three words of the Linnean diagnosis of the Hake, *Gadus merluccius* Linnaeus, 1758, but Cornide, although recognising it as this species, did not employ the Linnean name.

4. The proposal that this work should be rejected for nomenclatural purposes on the grounds that Cornide did not consistently employ the principles of binominal nomenclature either in the body of the work or in the indices, is supported by the statement of Sherborn, C. D. (1902, *Index Animalium* : xix) that it was non-binominal. Such names as Cornide used, have with the single exception of *Arengus* (which has been used only by very few ichthyologists), been ignored by zoologists.

Bull. zool. Nomencl., Vol. 21, Part 5. November 1964.

5. Later authors were either unaware of Cornide's name for the European Sardine or rejected it as non-binominal (e.g. Günther, A. C. L. G., 1868, *Catalogue of the Fishes in the British Museum*, **7** : 439), and for many years the accepted name for this fish was *Clupea pilchardus* Walbaum, 1792. Antipa (1904), however, proposed the generic name *Sardina* (non *Sardinia* Poey, 1858, see paragraph 6) for a species of Sardine *Sardina dobrogica* in the Black Sea, which was regarded as conspecific with *Sardina pilchardus* (Walbaum, 1792) by Regan (1916). Following Regan's revision, the name *Sardina pilchardus* (Walbaum, 1792) has been widely used in the European literature. In the voluminous fisheries literature of this species, as well as in European ichthyological works the Sardine has been referred to almost without exception as either *Clupea pilchardus* or *Sardina pilchardus* and the latter name embodying as it does, the basis of the vernacular names of this fish in all the major European languages, is well known.

6. The generic name *Sardina* was first published in a summary of Antipa's paper (by Steindachner, 1904, *Anz. Akad. Wiss. Wien*, **41** : 302) which included a diagnosis. This was published a year before the full text. In one place (page 303) in this summary the generic name is mis-spelt as *Sardinia* but elsewhere (page 302) it is correctly given as *Sardina*. In the full text of Antipa's paper (1905, *Denkschr. Akad. Wien*, **78** : 54), however, the form used is consistently *Sardina*, and this spelling has been consistently used by later authors. The status of the generic name *Sardina* Antipa, 1904 is not threatened under the Law of Homonymy by *Sardinia* Poey, 1858 (Article 56(a)). Hubbs, C. L. (1929, *Proc. Calif. Acad. Sci.* (4) **18** : 261–265) provided good evidence that *Sardinia* Poey referred to fishes of the genus *Sardinella* Cuvier & Valenciennes, 1847, and is thus a junior synonym of that name.

7. The generic name *Arengus* Cornide was revived by de Buen (1935, *Inst. Espanol. Oceanog. Notas y Resumes* (2) **88** : 43) who used it in the combination *Arengus pilchardus* (Walbaum, 1792). De Buen had earlier (1931, *Rapp. Proc.-verb. Réunions. Comm. int. Explor. Sci. Mediterranée*, **6** (new series) : 289–290) attempted to revive *Sardinia* Poey for the European Sardine despite Hubb's (1929) demonstration that it was not available for the fish; however, in later publications, de Buen continued to use the name *Arengus pilchardus*, but his example has not been widely followed by ichthyologists, and one, Svetovidov (1952, (Clupeidae) *Table. anal. Faune U.R.S.S. N.S.* No. **48** (No. 1) : 186) in a comprehensive revision has specifically rejected it. In extra-European literature it has been rarely used, for example by Smith, J. L. B., (1949, *Sea Fishes of Southern Africa* : 92) and Fowler, H. W., (1941, *Bull. U.S. nat. Mus.* No. 100 (**13**) : 620–626) who both employ it as a senior synonym of *Sardinops* Hubbs, 1929. Both these authors refer to the type species of *Arengus* Cornide as *Arengus minor* Cornide, 1788.

8. Cornide's book is possibly a border line case as a binominal work. In following the arrangement of the twelfth edition of the *Systema Naturae* it employs mainly Linnean names, but they are not differentiated from the species diagnosis in a clearly binominal manner. For example, under the Spanish name Murena (page 1) he lists " Sp. 2. Muraena ophis cauda aptera cuspidata corpore tereti ", which is, with only minor variation both the binomen and the

diagnosis given by Linnaeus, " *Muraena ophis*. 2. M. cauda aptera cuspidata, corpore tereti ". Except in six cases the binomen is in no way distinguished from the diagnosis, either typographically or by punctuation, and it seems doubtful from the text whether Cornide had more than a loose conception of binominal nomenclature.

9. Accordingly, I request the International Commission for Zoological Nomenclature to take the following action:

(1) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the generic name *Arengus* as rejected as published in a non-binominal work;

(2) to place on the Official Index of Rejected Specific Names in Zoology the name *minor*, as published in the combination *Arengus minor* and rejected as published in a non-binominal work;

(3) to place on the Official List of Generic Names in Zoology, *Sardina* Antipa, 1904, type species by monotypy *Sardina dobrogica* Antipa, 1904. [= *Sardina pilchardus* (Walbaum, 1792)];

(4) to place on the Official List of Specific Names in Zoology, *pilchardus* Walbaum, 1792, as published in the combination *Clupea pilchardus* Walbaum, 1792;

(5) to place on the Official Index of Rejected and Invalid Works in Zoological Nomenclature, the publication of Cornide, J., 1788, Ensayo de una historia de los Peces y otras producciones marinas de la Costa de Galicia, arreglado al sistema del caballero Carlos Linneo . . . [264 pages], [Corunna] (a work in which the author did not consistently apply the principles of binominal nomenclature).

COMMENT ON THE PROPOSED RULING ON THE TYPE-SPECIES OF *SCIAENA* LINNAEUS, 1758 Z.N.(S.) 850

(see volume 20, pages 349–360)

By E. Tortonese (*Museo Civico di Storia Naturale, Genova, Italy*)

As a student of the living fishes, I was especially interested in E. Trewavas' paper on *Sciaena*.

As the few Sciaenidae living in the Mediterranean are well-known and economically important species, it is very important to have their names fixed; we have too often had changes, and stability is highly desired by students and others.

Therefore, may I support Trewavas' action. Having personally considered this question, I think that the species involved must be so named: *Sciaena umbra*, *Umbrina cirrosa*, *Argyrosomus regius*. Alternative (i) as explained on page 353 of the paper quoted above, is therefore preferred. It also has the advantage of avoiding such names as " Coracinus umbra " and " Sciaena cirrosa " that are definitely unfamiliar to the Mediterranean student; with alternative (i) we may reach stability according to the rules and avoid too drastic changes.

CIMOLESTIDAE MARSH, 1889 (MAMMALIA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS.

Z.N.(S.) 1630

By William Clemens (*Museum of Natural History, University of Kansas, Lawrence*), Malcolm C. McKenna (*Department of Vertebrate Paleontology, American Museum of Natural History, New York*), Donald E. Russell (*Institut de Paléontologie, Muséum National d'Histoire Naturelle, Paris*), Robert E. Sloan (*Geology Department, University of Minnesota, Minneapolis*) and Leigh Van Valen (*Department of Vertebrate Paleontology, American Museum of Natural History, New York*)

The family CIMOLESTIDAE was established by Marsh (1889, *Amer. J. Sci.* (3) **38** : 89) for the supposedly marsupial genus *Cimolestes*. Clemens (unpublished results) has discovered that the type-species of *Cimolestes*, *C. incisus* is not a marsupial but a placental belonging to the family now known as the PALAEORYCTIDAE.

2. The last use of a family-group name based on *Cimolestes* was by Hay in 1930 (*Carnegie Inst. Wash. Pub.* 390, 2 : 391). Then and previously it was believed to apply only to marsupials, but even in this usage it has been superseded in the literature by the subfamily PEDIOMYNIAE of the family DIDELPHIDAE.

3. The name PALAEORYCTIDAE dates from the use by Winge in 1917 (*Saertryk Vidensk. Meddel. Dansk Naturh. Foren.* **68** : 161) of " Palaeoryctae " at the level of a tribe. McDowell combined the families PALAEORYCTIDAE and DELTATHERIDIIDAE in 1958 (*Bull. Amer. Mus. nat. Hist.* **115** : 117–214), retaining the former name. He has been followed in this usage by everyone doing original research on this family since that date: McKenna (1960, *Univ. California Pub. Geol. Sci.* **37** : 1–130), McKenna, Robinson, and Taylor (1962, *Amer. Mus. Novitates* 2102 : 1–33), and papers now in press or in preparation by Russell, Van Valen, Sloan, Clemens, and McKenna.

4. The union of *Cimolestes incisus* and the PALAEORYCTIDAE differs in two respects from the usual union of families:

(1) Only one species of the former family CIMOLESTIDAE is being transferred, the others remaining in the DIDELPHIDAE or being too poorly known for familial allocation.

(2) The union causes no substantial change in the concept of the PALAEORYCTIDAE. *Cimolestes* may actually be a senior synonym of one of the genera currently referred to the PALAEORYCTIDAE.

5. For the reasons given in paragraphs 3 and 4, we request the Commission

(a) to use its plenary powers to suppress the family-group name CIMOLESTIDAE Marsh, 1889, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(b) to place the family-group name suppressed in (a) above on the Official Index of rejected and Invalid Family-Group Names in Zoology.

CNEMIDOPHORUS SEPTEMVITTATUS COPE OR *CNEMIDOPHORUS SCALARIS* COPE, 1892 (REPTILIA): AN APPEAL FOR USE OF PLENARY POWERS TO SET ASIDE THE RULE OF THE FIRST REVISER. Z.N.(S.) 1634

By Ralph W. Axtell (*Dept. of Zoology, Southern Illinois University, Alton, Illinois*)

The following is addressed as an appeal to the International Commission on Zoological Nomenclature to set aside, in this case, the " rule of the first reviser " so that nomenclatoral stability may be established and maintained.

The relevant history of this case follows.

1. In 1892, Cope (*Trans. Amer. Philos. Soc.*, **17**) described *Cnemidophorus septemvittatus* (p. 40), *Cnemidophorus gularis scalaris* (p. 47), and *Cnemidophorus gularis semifasciatus* (p. 49).

2. In 1950, Burger (*Nat. Hist. Misc.* (65) : 4–5) synonymized the name *septemvittatus* with *semifasciatus*, but treated both *scalaris* and *semifasciatus* as different sub-species of *Cnemidophorus sacki*—a name used for this group by Smith (1949, *Jour. Wash. Acad. Sci.*, **39** (1) : 34–43). Burger realized that Cope's name *Cnemidophorus septemvittatus* had page priority over *Cnemidophorus gularis semifasciatus*, but he considered it preferable to " disregard page priority " in this case because the locality for *septemvittatus* (El Dorado Co., California) was subject to question.

As Burger (op. cit.) made a clear choice between two names (*semifasciatus* over *septemvittatus*) his action qualifies as that of " first reviser " under Article 24 of the 1961 Code.

3. Duellman and Zweifel (1962, *Bull. Amer. Mus. Nat. Hist.*, **123** : 155–210) failed to use Burger's legal selection of *semifasciatus*, but readopted the name *Cnemidophorus septemvittatus*. They included both *scalaris* and *semifasciatus* as trinomials of *C. septemvittatus*.

4. In 1963, Williams and Smith (*Herpetologica*, **19** (1) : 68–9) pointed out misuse of the name *septemvittatus* by Duellman and Zweifel. However, in reverting to a substitute name for *septemvittatus*, Williams and Smith bypassed *semifasciatus*, which by Burger's earlier action had priority over *septemvittatus*. Instead they chose to make additional selection as " first revisers " between the two remaining names, *scalaris* and *semifasciatus*. Their choice went to *scalaris* because it has page priority over *semifasciatus*.

Discussion:

1. Five revisers, Cope (1892), Gadow (1906, *Proc. Zool. Soc. London*, **1** (24) : 277–375), Burt (1931, *Bull. U.S. Nat. Mus.* (154) : viii + 386), Burger (1950) and Duellman and Zweifel (1962) have contributed to our knowledge of the teiid genus *Cnemidophorus*.

2. Until the recent synopsis by Duellman and Zweifel, the names *scalaris* and *semifasciatus* have consistently been used as trinomials. *Cnemidophorus septemvittatus* was employed as a binomial originally, but has been considered a synonym of various species of *Cnemidophorus* subsequently. None of these

names have appeared in the literature (as binomens) consistently enough to warrant retention on grounds of usage.

3. Revisionary work prior to that of Duellman and Zweifel (op. cit.) has been notoriously incomplete and subjective. Earlier investigators included little or no quantitative data to demonstrate relationships between the forms under consideration, so their basis for synonymization was based mainly upon similarities in color pattern. All subsequent work on this group of *Cnemidophorus* will, by necessity, stem from the work of Duellman and Zweifel. It is extremely important, therefore, that the names used in this publication be preserved. To abrogate this usage now because of a technical flaw in their selection of a name would seem to be completely out of context with the intended usage and purpose of the Code.

4. The type locality for *Cnemidophorus septemvittatus*, with which Burger (1950) was concerned (supra), had actually been considered and clarified earlier by Burt (1931 : 124, 129), who restricted the type locality to the region of Marfa, Presidio County, Texas.

5. Therefore, I appeal to the International Commission to take the following action, which would be least disturbing to, and most effective in, maintaining nomenclatural stability:

(a) to use its plenary powers to set aside the action of Burger (1950 : 4, 5) as first reviser, thereby validating the name *Cnemidophorus septemvittatus* Cope, 1892, as the oldest name available for this group of lizards;

(b) to place the specific name *septemvittatus* Cope, 1892, as published in the binomen *Cnemidophorus septemvittatus*, on the Official List of Specific Names in Zoology.

ORNITHOLOGIA BRITANNICA, 1771: PROPOSED VALIDATION OF FOUR SPECIFIC NAMES. Z.N.(S.) 1636

by the Standing Committee on Ornithological Nomenclature
of the International Ornithological Congress

Chairman: Finn Salomonsen

The anonymously published work entitled *Ornithologia britannica* issued in 1771 and believed to have been written by M. Tunstall was accepted for nomenclatorial purposes by the I.C.Z.N. (Opinion 38), but this opinion was subsequently cancelled and in Direction 38 (1956, *Ops. Decls. int. Comm. zool. Nomencl.* **1**(D.) : 83–94) this work was rejected for all nomenclatorial purposes. The only exception to the rejection is the generic name *Pyrrhocorax*, which was validated in Opinion 404 (1956, *Ops. Decls. int. Comm. zool. Nomencl.* **13** (5) : 87–106). There are, however, four specific names published in the work in question which are in current use for common and widespread birds and, therefore, should be validated, just like *Pyrrhocorax*. Our attention has been drawn to this case by a note recently published by Messrs C. H. B. Grant & C. W. Mackworth-Praed (1957, *Bull. Brit. Ornith. Club* **77** : 48–49) in which substitute names have been proposed.

The four names are:

(1) *Falco Peregrinus* (p. 1), the name for the Peregrine Falcon. This name has been in continuous use since it was given, that is in almost 200 years, and a change now must be considered quite out of question. The substitute name, if Tunstall's name is rejected, would be *Falco communis* Gmelin 1788, which is a subjective synonym.

(2) *Falco Æsalon* (p. 1), the name of the European Merlin, used as such in many countries since it was given, and universally adopted about 50 years ago. There are no objective synonyms, but many subjective ones. *Falco regulus* Pallas 1773 has often been used, but is now by many students applied to the N.E. Russian–W. Siberian populations, which are considered separable from the European ones. According to Grant & Mackworth-Praed *Falco columbarius alaunicus* Fediushin 1927 is the first available name, being a subjective synonym to *aesalon*. According to the most recent Russian hand-book (Dementiev, 1951, *Ptitsy Sovetskogo Soiusa* **1** : 136) both *regulus* and *alaunicus* are synonyms of *aesalon*, and this makes *regulus* the oldest available substitute name for *aesalon*. Having now, 50 years ago, achieved uniformity in the naming of the European Merlin it would be most infortunate to make name changes again.

(3) *Alauda Rubescens* (p. 2), used in the combination *Anthus spinoletta rubescens* as the designation for the American Water-Pipit. This name has been universally used for at least 30 years. The first available synonym is *Alauda pensilvatica* Latham, 1787, which has been much used in former times. It would, however, be most confusing and would serve no purpose to revert to this name.

Bull. zool. Nomencl., Vol. 21, Part 5. November 1964.

(4) *Motacilla cinerea* (p. 2), used for the Grey Wagtail. The oldest available synonym is *Motacilla boarula* Linnaeus, 1771, formerly often used. The inconvenience and confusion caused by breaking the present uniformity and stability and changing the name of this common and widespread bird are just as great as in the three other, above mentioned cases.

Recommendations

In the light of the considerations set forth in the present application the International Commission is asked to take the following action for the purpose of keeping the present stability and uniformity and avoiding any confusion in the nomenclature of the species concerned, namely that it should:—

(1) use its plenary powers to validate the following specific names which are published in the work *Ornithologia britannica* in 1771 no doubt by M. Tunstall, a work which has been rejected by the Commission for all nomenclatorial purposes:
  (a) *peregrinus* [Tunstall], 1771, as published in the combination *Falco Peregrinus.*
  (b) *aesalon* [Tunstall], 1771, as published in the combination *Falco Æsalon.*
  (c) *rubescens* [Tunstall], 1771, as published in the combination *Alauda Rubescens.*
  (d) *cinerea* [Tunstall], 1771, as published in the combination *Motacilla cinerea.*
(2) place the above-mentioned four names, validated under 1 a–d, on the Official List of Specific Names in Zoology.

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GEORGE C. A. JUNGE. Rijks-Museum van Natuurlijke Historie, Leiden.
ALDEN H. MILLER, Museum of Vertebrate Zoology, University of California, Berkeley.
ERWIN STRESEMANN, Zoologisches Museum der Universität, Berlin.

1 *March* 1958

MOEHRING, 1758, *GESLACHTEN DER VOGELEN*: PROPOSED SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 1637

Application submitted by the Standing Committee on Ornithological Nomenclature of the International Ornithological Congress

Chairman: Finn Salomonsen

The work *Geslachten der Vogelen* edited by Nozeman & Vosmaer, Amsterdam, 1758, has generally been considered a new edition of Moehring's work of 1752, and being, therefore, a re-edition of a pre-Linnean work, has been rejected by the International Commission in Opinion 241 (*Ops. Decls. int. Comm. zool. Nomencl.* **5** : 15–21, 1954) and placed on the Official Index of rejected Works with the List Number 6. Recently Messrs. C. H. B. Grant and C. W. Mackworth-Praed have examined both editions and arrived at the conclusion that the 1758-edition is not a reprint of the 1752-edition, but a new work with a different pagination and additions of various kinds (cf. Grant & Mackworth-Praed, 1956, *Ann. Mag. nat. Hist.* (12) **9** : 774–778). This view is held also by Mr. A. C. Townsend, Principal Librarian of the British Museum (Natural History), Mr. W. H. T. Tams, Entomological Department, British Museum (Natural History), and Lieut.-Colonel W. P. C. Tenison, Editor, Zoological Record (Aves), who have examined the two editions, too. This leaves a new situation and necessitates new action by the Commission.

2. Moehring's names have often been discussed, first, we think, by Sundevall, 1857 (*J. Ornith.* **5** : 242–257), and most students have agreed in rejecting them. The acceptance of Moehring's names in his 1758-edition would result in an endless confusion and would involve changes in name for even the most common and wide-spread birds. As examples can be cited: *Curruca* Moehring antedates *Curruca* Bechstein, 1802 (used for sylviids) and would replace *Terpsiphone* Gloger, 1827, as the generic name for the Paradise-Flycatchers. *Ciconia* Moehring antedates *Ciconia* Brisson, 1760 (used for storks) and would replace *Balearica* Brisson, 1760 as the generic names for an African group of Cranes, while the storks should be renamed *Melanopelargus* Reichenbach, 1852. *Scops* Moehring antedates *Scops* Brünnich, 1772 (used for owls) and would replace *Anthropoides* Vieillot, 1816, as the generic name for the Demoiselle Crane. There are a total of 54 generic names in Moehring's work which antedate generic names of later authors and necessitate change of names, at least change of author and date. In no less than 21 cases a most confusing change of generic names will be necessary, such as those mentioned above. It would not serve any purpose to make all these name changes, on the contrary it would cause utter confusion, and would certainly not contribute to the maintainance of stability and uniformity in nomenclature. The Standing Committee on Ornithological Nomenclature, therefore, ask the International Committee on Zoological Nomenclature:

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to use the plenary powers to reject for all nomenclatorial purposes Moehring's work *Geslachten der Vogelen*, published in 1758 in Amsterdam.

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GEORGE C. A. JUNGE, Rijksmuseum van Natuurlijke Historie, Leiden.
ALDEN H. MILLER, Museum of Vertebrate Zoology, University of California, Berkeley.
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MELES MONTANUS RICHARDSON, 1829, AND *MELES JEFFERSONII* HARLAN, 1825: PROPOSED SUPPRESSION UNDER THE PLENARY POWERS (MAMMALIA, CARNIVORA) Z.N.(S.) 1639

By Charles A. Long (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, U.S.A.*)

The purpose of this proposal is to request the International Commission on Zoological Nomenclature to use its plenary powers to suppress the species-group name *montanus* Richardson, 1829 (*Fauna Boreali-Americana* (1) : 41), published in the combination *Meles montanus*, and concomitantly to ensure that the name *berlandieri* Baird, 1858 (*Mammals of North America* : 205), published in the combination *Taxidea berlandieri*, shall be conserved as a species-group name; and, furthermore, to suppress the species-group name *jeffersonii* Harlan, 1825 (*Fauna Americana* . . . : 309), published in the combination *Meles jeffersonii*, and concomitantly to ensure that the name *neglecta* Mearns, 1891 (*Bull. Amer. Mus. Nat. Hist.* **3** : 250, June 5), published in the combination *Taxidea americana neglecta*, shall be conserved as a species-group name.

2. In 1651, Francisco Hernández (*Nova plantarvm, animalivm et mineralivm mexicanorvm historia a Francisco Hernández* . . . [*Rervm medicarvm Novae-Hispaniae thesaurus* . . .], Rome, p. 6) described a Mexican mammal then commonly known as Quauhpecotli or Texon [=coati?], and referred to it as " Mele montano ". Its description fits the North American badger well, excepting mention of a long tail (which, incidentally, is rather long in the Mexican subspecies). Its description also fits the coati, *Nasua narica* (Linnaeus), excepting mention of dark pelage. In 1829, Richardson in his account of the North American badger mentions briefly the description of " Fernandez " (= Hernández), uses the name " Meles montanus," and publishes a brief description (" long tail "). The name *montanus* Richardson is, therefore, available, and the type-locality, mentioned by Hernández, is Mexico.

3. The description of Hernández, pertaining to badger or coati, results in the name being used arbitrarily. Richardson applied the name to a badger (" *Meles* "), although he stated that the animal probably belonged to a different genus.

4. In 1858, Baird named and described *Taxidea berlandieri* from a type-specimen taken at Llano Estacado, present day Texas; the taxon (subspecies) to which this name applies has been recognized continuously since then under Baird's name, and has been often termed the Mexican badger. If the name of Richardson applies to a badger, both *berlandieri* Baird and *montanus* Richardson apply to one and the same subspecies.

5. If the name *montanus* Richardson, 1829, pertains to a coati, probably the name *Nasua narica molaris* Merriam, 1902, would be supplanted, perhaps the name *Nasua narica narica* (Linnaeus) would become the senior synonym of *montanus* Richardson, or some other disruptive change might be made necessary.

6. In 1950, Schantz (*Jour. Mamm.* **31** : 90, February 21) named and described *Taxidea taxus montana*, a subspecies of badger from the state of Montana. If *montanus* Richardson, 1829, is referred to *Taxidea*, the name of Schantz is an

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active, junior secondary homonym, of *Taxidea montana* (Richardson), 1829, and must be rejected in favor of its earlier synonym.

7. On the basis of comparisons of numerous badgers from North America, I regard the populations known as *montana* Schantz to be inseparable from those currently known by the older name *Taxidea americana neglecta* (= *Taxidea taxus neglecta*) Mearns, 1891.

8. However, *Meles jeffersonii* (= *Taxidea taxus jeffersonii*) Harlan, 1825, is even an older name than *neglecta* Mearns, and is its senior synonym, although it has been listed as a synonym of the name of the nominate subspecies for more than 100 years (Baird, *ibid.*, p. 202, 1858; Hall and Kelson, *The mammals of North America* : 928, 1959). The type-locality of *jeffersonii* is the "open plains of Columbia," a region within the geographic range of *neglecta*. The name *jeffersonii* is based by Harlan only on a description of Lewis and Clark.

9. By the automatic provisions of the Code, therefore (excluding from consideration the as yet unsettled *nomen oblitum* clause), the name *montana* Schantz, must be rejected in favor of *jeffersonii* (Harlan), and the long-used name *neglecta* Mearns, 1891, is unavailable as a junior synonym of *jeffersonii* (Harlan), which name has not been used for 100 years. Furthermore, the well-known name *berlandieri* Baird, 1858, used continuously for more than 100 years, is possibly also unavailable as a junior synonym of a name (*montanus* Richardson, 1829) of a mammal (1) which is quite possibly not a badger, (2) which has no type specimen, (3) which has an imprecise type locality, and (4) which has been overlooked for more than 130 years.

10. As the names of taxa of badgers, *neglecta* Mearns and *berlandieri* Baird have been used continuously for 73 and 106 years, respectively, and the latter name has appeared in especially many scientific and popular writings, change of these names would result in tremendous confusion. Taxonomic confusion would probably also result if the name *montanus* Richardson is referred to the coatis, *Nasua*.

11. For the reasons listed above, I now request the International Commission on Zoological Nomenclature:

(1) to use its plenary powers to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy:
  (a) the specific name *montana* Richardson, 1829, as published in the binomen *Meles montanus;*
  (b) the specific name *jeffersonii* Harlan, 1825, as published in the binomen *Meles jeffersonii;*
(2) to place the following specific names on the Official List of Specific Names in Zoology:
  (a) *berlandieri* Baird, 1858, as published in the binomen *Taxidea berlandieri;*
  (b) *neglecta* Mearns, 1891, as published in the combination *Taxidea americana neglecta*;
(3) to place the specific names suppressed under the plenary powers in (1) above on the Official Index of Rejected and Invalid Specific Names in Zoology.

THE NAME *CACATUA* BRISSON, 1760 (AVES): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1647

By Ernst Mayr (*Museum Comp. Zool. Cambridge, Mass.*), Allen Keast (*Queen's Univ., Kingston, Ontario*) and D. L. Serventy (*C.S.I.R.O., Nedlands, W. Australia*)

1. In his recent application dealing with Brisson's generic names for birds, Mr. Hemming stated (*Bull. Zool. Nomencl.* **19** : 14) that special action may be required for the names *Cacatua* and *Lorius.* The present application deals with the name *Cacatua* (see also Direction 105, 1963, *Bull. Zool. Nomencl.* **20** : 343–344).

The name *Cacatua* was proposed by Brisson in volume 4, p. 204, of his *Ornithologie.* Brisson includes species 8, 9, 10, 11, and 12 in his genus *Cacatua,* giving them the following Latin designations: Number 8, *Cacatua* (p. 204), no. 9 *Cacatua luteocristata* (p. 206), no. 10 *Cacatua rubrocristata* (p. 209), no. 11 *Cacatua minor* (p. 212), and no. 12 *Cacatua alis* et *cauda rubris.*

2. As in the case of the name *Gallinago* (Hemming, 1956, Direction No. 39), there is no doubt that Brisson uses the name *Cacatua* in a generic sense. As was customary with him, he uses mononomials in the case of tautonymy, but all subsequent authors have accepted this fact of tautonymy to indicate that species No. 8 (= *Psittacus albus* Müller) is the type-species of his genus *Cacatua.* On the other hand, Brisson did not include the name *Cacatua* in the index of the *Ornithologie*, which is the reason why the name was rejected by many authors, particularly within the last 50 years. Most of these accepted the name of *Cacatua* as of Vieillot (1817, *Nouveau Dictionaire d'Histoire Naturelle* **17** : 6). Unfortunately, between 1760 and 1817, five other names were introduced into ornithology, for which it has been claimed that they are valid generic designations for the cockatoos. The following comments deal with these five names.

3. *Kakatoe.*—In the synoptic Table 2 in his *Leçon d'Anatomie Comparée*, 1800, Cuvier lists the name Kakatoe corresponding to the equivalent French vernacular. The name at this place is clearly a nomen nudum, but according to Opinion 39, " Those of Cuvier's names in these synoptic tables are available which can be identified through bibliographic references given on page XIX of the introduction to the Leçon." The majority of subsequent authors have refused to consider this an establishment of the Cuvier names, since in most cases only the vernacular names give any clue as to the identity of the Latin names. Nevertheless, the late James L. Peters adopted Cuvier's name. In all of his other writings, Cuvier only uses vernaculars for the various subdivisions of the genus *Psittacus* (parrots). This is particularly true for the *Tableau élémentaire* 1798 (p. 236) and for the *Règne Animal* 1817 (p. 433).

4. *Cacatoes.*—In the *Zoologie Analytique*, Duméril uses only French names in his diagnostic key on p. 51, but on p. 50 he refers to the cockatoes in the nebulous sentence: " Les perroquets (*psittacus*) et les deux genres suivans, qui ont conservé le même nom [? as in French] d'ara et de cacatoes en latin . . " It does not seem to us that such a reference to the vernacular name saves the

name *Cacatoes* from being a nomen nudum, and this has been the virtually unaminous opinion in ornithological systematics.

5. *Cacatoes*.—In the German edition of Duméril prepared by Froriep, the species *Psittacus cristatus* L. is quoted in connection with the generic name *Cacatoes* which would validate the name as of Froriep. To the best of our knowledge, Mathews (see below) is the only author who has ever intimated that Froriep's name would make the Duméril name available by having cited a definite species with the generic name.

6. *Cacatus*.—In 1815, Rafinesque in his *Analyse de la Nature*, p. 64, proposed the name *Catacus* (sic!), because he considered Cacatoes a vernacular name and not acceptable. No subsequent author, to the best of our knowledge, has adopted Rafinesque's replacement name.

7. *Plyctolophus*.—Vieillot in 1816 (*Analyse* : 26) proposed the name *Plyctolophus* for the cockatoos. There is a description which might refer to a number of species, but the only two species cited are the " Kakatoes noir " (*Probosciger ater*) and " à huppe rouge, Buffon " (*Cacatua moluccensis*).

8. Vieillot in the next year (*Nouveau Dictionaire* **17** : 6, 1917) rejected his own name *Plyctolophus* as unsuitable for most species of cockatoos and adopted the name *Cacatua* Brisson. Subsequent to this action the name *Cacatua*, as of Brisson, was adopted by the majority of authors and after about 1840 until 1910, virtually unanimously.

9. Mathews in 1912 revived some of the older names and in the following years he wavered in his various writings between *Kakatoe*, *Cacatoes*, and other synonyms. He appeared finally to have settled on the form *Kakatoe* for the genus (*Check List of the Birds of Australia*, part I [issued as Supplement No. 1 to his *The Birds of Australia*], 1920). The *R.A.O.U. Official Checklist of Australian birds*, 1926, adopted this usage and subsequently all contributors to the *Emu* had to follow suit. The majority of non-Australian authors continued to use the name *Cacatua* until 1937, when Peters, in the *Check-List of Birds of the World*, vol. 3, p. 173, followed Mathews in adopting Cuvier's *Kakatoe*. A considerable number of later authors followed Peters, others rejected Cuvier's name as a nomen nudum and essentially a vernacular name. Furthermore, some authors insisted that the name *Cacatua*, having been in virtually universal use for 100 years and being the name used in the entire classical literature on parrots, had acquired a standing that would not justify a shift to *Kakatoe* or any other name. Numerous uses of the name *Cacatua* in the recent literature could. be cited, for example: Brereton, *Proc. XIII Intern. Ornithol. Congr.* **1** : 499–517, 1963; Condon, A Handlist of the Birds of South Australia, *S.A. Ornithol.* **23** : 112, 1962; Mayr, *List of New Guinea Birds* : 65, 1941; Mayr, *Birds of the Southwest Pacific* : 232, 1945; Serventy and Whittell, *Birds of Western Australia*, 3rd edition, 1962. The name *Cacatua* also forms the basis of names in the family group of names either as a subfamily or a family name Cacatuinae and Cacatuidae.

10. Considering that all the names given to the cockatoos between 1800 and 1817 are of doubtful nomenclatural validity, it would seem best to avoid all future difficulties by placing the name *Cacatua* Brisson on the Official List of Generic Names and thereby make all the other competing names automatically

junior synonyms. This action would seem to be in the best interest of stability in ornithological nomenclature.

The International Commission on Zoological Nomenclature is requested:

(1) to use its plenary powers to validate the generic name *Cacatua* Brisson, 1760, with *Psittacus albus* Müller, 1776, as type-species;

(2) to place the generic name *Cacatua* Brisson, 1760, type by designation in (1) above *Psittacus albus* P.L.S. Müller, 1776, on the Official List of Generic Names in Zoology.

(3) to place the specific name *albus* P.L.S. Müller, 1776 (*Syst. Nat. Suppl.* : 76, No. 50) as published in the binomen *Psittacus albus*, type of the genus *Cacatua* Brisson, 1760, on the Official List of Specific Names in Zoology.

LAEMOPHLOEUS IMMUNDUS REITTER, 1874 (INSECTA: COLEOPTERA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 1649

By L. P. Lefkovitch (*Agricultural Research Council, Pest Infestation Laboratory, London Road, Slough, Bucks., U.K.*)

The purpose of the present application is to request the suppression of the binomen *Laemophloeus immundus* Reitter and to validate the binomen *Laemophloeus turcicus* Grouvelle. The case is one in which the latter, a junior subjective synonym of the former, now pointed out for the first time, has been widely used in Applied Zoology.

2. E. Reitter, 1874 (*Verh. zool.-bot. Ges. Wien* **24** : 519), when describing Japanese Cucujidae, named one species *Laemophloeus immundus*. Four syntypes of this species are deposited in the British Museum (Natural History). A. Grouvelle, 1876 (*Ann. Soc. ent. Fr.* (5) **4** : xxxii) described and named a species, which had been infesting dried fruit originating from Turkey, as *Laemophloeus turcicus*. The syntypes of this species were given as being in the Grouvelle and Javet collections but as I noted in 1959 (*Trans. R. ent. Soc. Lond.* **111** : 107), no material of this species could be found in either the Musée Nationale d'Histoire Naturelle, Paris or the Deutsches Entomologisches Institut, Berlin where the main bodies of these collections are now maintained. However, specimens of *L. turcicus*, formerly in the Grouvelle collection, are deposited in the British Museum (Natural History) and one of these has been selected as lectotype (L. P. Lefkovitch, 1959, *Trans. R. ent. Soc. Lond.* **111** : 107).

3. A comparison between the syntypes of *L. immundus* and the lectotype *L. turcicus* has shown that these specimens represent the same species. Thus, according to the Rules, *L. immundus* and *L. turcicus* are subjective synonyms, the former being the valid name of the species.

4. The name *turcicus*, in either the binomen *Laemophloeus turcicus* Grouvelle or *Cryptolestes turcicus* (Grouvelle), has been widely used for this species, which is of economic importance. The library of the Pest Infestation Laboratory has about 50 references to this species, a selection of which are given below, under the name *turcicus* in one of these two combinations. It has not been possible to find any mention of *L. immundus* apart from the original description and taxonomic and faunistic catalogues. The name *immundus*, in the binomen *L. immundus*, has hitherto not been associated with any pest.

5. In order to maintain nomenclatoral stability in Applied Zoology, I ask the International Commission on Zoological Nomenclature:—

(1) to use its plenary powers to suppress the specific name *immundus* Reitter, 1874, as published in the binomen *Laemophloeus immundus* for the purposes of the Law of Priority but not for that of the Law of Homonymy;

(2) to place the name *immundus* Reitter, 1874, as published in the binomen *Laemophloeus immundus*, on the Official Index of Rejected and Invalid Specific Names in Zoology; and

(3) to place the name *turcicus* Grouvelle, 1876, as published in the binomen *Laemophloeus turcicus*, on the Official List of Specific Names in Zoology.

Selection of references to *Laemophloeus turcicus* Grouvelle or *Cryptolestes turcicus* (Grouvelle) (see para. 4).

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Biochemistry:—Gupta, P. D. and Sinha, R. N. 1960. *Ann. ent. Soc. Amer.* **53** : 632–638

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Solomon, M. E. and Adamson, B. E. 1955. *Bull. ent. Res.* **46** : 311–355

Control:—Cornwell, P. B., Crook, L. J. and Bull, J. O. 1957. *Nature*, Lond. **179** (4561) : 670–672
Cotton, R. T. 1962. *Northw. Miller* 266 : 31–33

Damage to products and records:—Baeta Neves C. M. 1953. *Vida Agric.* (93) Jan.-Feb. 2 pp.
Howe, R. W. and Lefkovitch, L. P. 1957. *Bull. ent. Res.* **48** : 795–809
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Lechanteur, F. 1950. *Feuill. Nat.* **5** : 87–92
Lefkovitch, L. P. 1962. *Proc. R. ent. Soc. Lond.* (B) **31** : 71–72
Richards, O. W. and Herford, G. V. B. 1930. *Ann. appl. Biol.* **17** : 367–395
Rilett, R. O. and Weigel, R. D. 1956. *J. econ. Ent.* **49** : 154–156
Weidner, H. 1952. *Mitt. Hamburg. zool. Mus.* **51** : 90–173

Genetics:—Dyte, C. E. and Blackman, D. 1961. *Proc. R. ent. Soc. Lond.* (A) **36** : 168–172

Natural enemies:—Finlayson, L. H. 1952. *Trans. 9. int. Congr. Ent.* (Amsterdam 1951) **1** : 369–374

Taxonomy:—Ganglbauer, L. 1899. *Käfer Mitteleuropa* **3** : 1046 pp.
Lefkovitch, L. P. 1959. *Trans. R. ent. Soc. Lond.* **111** : 95–118
Lefkovitch, L. P. 1962. *Bull. Brit. Mus. (nat. Hist.) Ent.* **12** : 165–245
Reid, J. A. 1942. *Proc. R. ent. Soc. Lond.* (A) **17** : 27–33
Steel, W. O. and Howe, R. W. 1952. *Proc. R. ent. Soc. Lond.* (B) **25** : 86–88

PAMPHAGIDAE BURMEISTER, 1840, AND PYRGOMORPHIDAE BRUNNER VON WATTENWYL, 1874 : PROPOSED ADDITION TO THE OFFICIAL LIST OF FAMILY-GROUP NAMES IN ZOOLOGY, AND FURTHER PROPOSALS ARISING THEREFROM (INSECTA: ORTHOPTERA). Z.N. (S). 1650

By. D. Keith McE. Kevan (*Department of Entomology, McGill University, Macdonald College, Province of Quebec, Canada*)

The earliest grouping of genera belonging to what is currently known as the family Pyrgomorphidae (Orthoptera: Acridoidea) was that of Brullé (1835), who took exception to Audinet-Serville's (1831) recognition, as separate genera, of *Poekilocerus* Audinet-Serville, 1831 (which Brullé emended to *Poecilocerus* and called " les Poecilocères "), *Phymateus* Thunberg, 1815 (" les *Phymatées* "), *Petasia* Audinet-Serville 1831 [= *Dictyophorus* Thunberg, 1815] (" *les Pétasies* ") and *Romalea* Audinet-Serville, 1831 (" les *Romalées*). Brullé regarded all as " divisions " of a single " sous-genre ", *Dictyophorus* Thunberg (" les *Dictyophores* "). *Romalea* is not now placed in the same family, but the others were then the only described genera that are now referable to the Pyrgomorphidae. It cannot, however, be argued that the earliest name for the family now known as the Pyrgomorphidae is Dictyophoridae, based on Brullé's (1835) vernacular name " Dictyophores", since this does not meet the conditions of Article 11(e) of the 1961 International Code of Zoological Nomenclature. Brullé merely used the name as a simple generic plural, it was not directly latinized subsequently, and is not " generally accepted by zoologists interested in the group concerned as dating from the first publication in vernacular form."

The first acceptable usage of a family-group name based on *Dictyophorus* is that of Kirby (1902), who used Dictyophorinae—without comment, but nevertheless availably under Article 16(a) (iv) of the Code—in place of Petasiae of Bolivar (1884). The latter is a family-group name based on *Petasia* Audinet-Serville, 1831 (Orthoptera), a junior synonym of *Dictyophorus*—see Karsch (1893)—and a junior homonym of *Petasia* Stephens, 1828 (Lepidoptera)—see Kirby (1902a). Tapesi[i]nae of Bolívar (1904) is a junior synonym of Dictyophorinae, its type-genus, *Tapesia* Bolívar, 1904, proposed to replace *Petasia* Audinet-Serville, also being a junior synonym of *Dictyophorus*—see Kevan (1953).

With Audinet-Serville's (1838) grouping of the " Famille Acridites " (present superfamily Acridoidea) into various " divisions," two of the genera referred to above, *Phymateus* and *Petasia* [=*Dictyophorus*]—together with *Romalea*, *Tropinotus* Audinet-Serville, 1831 [preoccupied = *Diedronotus* Bolívar, 1906], several species erroneously placed in *Xiphicera* Lamarck, 1817, and the pamphagids, *Akicera* Audinet-Serville, 1831, and *Porthetis* Audinet-Serville, 1831—were included in his division " Conophori." Another, of the genera referred to, *Poekilocerus*, he placed in the division " Truxalides," which also included

Truxalis, [subgenus] *Pyrgomorpha*, erected in the same work. The only other genus described by that time, and at present included in the Pyrgomorphidae, was *Chrotogonus* Audinet-Serville, [1838], and this he placed in his sub-division " Mutici " of the division " Acridites propriè dicti."

The dispersion of pyrgomorphid genera among several groups of Acridoidea persisted until the time of Stål (1873), but Burmeister (1840) disagreed in part with Audinet-Serville (1838), and transferred *Poekilocerus* (emended to *Poecilocera*) to the Conophori, within which he erected two " Unterabtheilungen." Xiphoceridae (more correctly Xiphiceridae) and Poeciloceridae (more correctly Poekiloceridae). The former contained the American genera, *Romalea* (emended to *Rhomalea*), *Tropinotus* (emended to *Tropidonotus* and, like it, preoccupied) and *Xiphicera* (*sensu* Serville, emended to *Xiphocera*). The Poeciloceridae comprised Old World genera, and were divided into two " Sektionen ": Pamphagidae and Phymatidae (more correctly Phymateidae). This was the original proposal of the currently used family-group name based on *Pamphagus* Thunberg 1815, and also of family-group names based on *Poekilocerus* and *Phymateus*. The Pamphagidae, in addition to the type genus, also dubiously included the unrelated *Teratodes* Brullé, 1835. The name " Phymatidae," however, is an objective synonym of " Poeciloceridae " since the type genus of the latter was included within it. *Phymateus* and *Petasia* [= *Dictyophorus*], the only other included taxa, were regarded as mere " Sektionen " [subgenera] of *Poecilocera* [= *Poekilocerus*].

The oldest available name for the family currently known as Pyrgomorphidae is undoubtedly Poekiloceridae Burmeister, 1840[1], but as Kevan (1953a) has pointed out[2], the name has remained virtually unused for the family since its proposal. Scudder (1868) and Thomas (1873) both used it, but only in outlining previous classificatory systems.[3] The family-group name "Poecilocerae " was, however, introduced later by Bolívar (1884) for a subordinate taxon (" subtribu " or " sub-tribus ").

In contrast to the lack of use of Poekiloceridae, the name Phymat[e]idae (or variations of it) was used quite frequently in the literature, at first in more or less the same sense as Burmeister (1840)—e.g. by Scudder (1868), Walker (1870, 1870a), Thomas (1873), and Girard (1876)[4]—but later, following Stål (1873), in a more modern sense to include *Pyrgomorpha*, *Chrotogonus* and other genera (Stål, 1876; Seoane, 1878; Kirby, 1889; Yakobson, 1902; Kuzrutzov *in* Sharp,

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[1] Kevan (1952) incorrectly attributed the name to Scudder (1868) and suggested that it could not be used because the type genus was not referred to. The error was corrected shortly afterwards (Kevan, 1953a).

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[2] The paper was presented at the 14th International Congress of Zoology, but was inadvertently omitted from the published Proceedings and appeared only in a short-lived mimeographed periodical with a limited circulation.

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[3] Kevan (1953a) mentions only the first of these works.

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[4] Girard used the form Phymatini (as did Thomas, *op. cit.*, in his general text); he also used it in a very wide sense, more or less equivalent to the old Conophori of Audinet-Serville (1838).

1910). Stål probably used " Phymatidae " independently from Burmeister (1840), and regarded the group as a subfamily of the family Acridoidea (=Acrididae, *sensu lato*). Kirby (1889) used the modern subfamily termination and regarded the " Phymatinae " as a subfamily of " Locustidae " (=Acrididae, *sensu lato*). Bolívar (1876) and Targioni Tozzetti (1882) also followed Stål (*op. cit.*), but used the vernacular (" Fimatinos " and " Fimatini " respectively). Yakobson (1920) recognized the group as a family (" semeistov ") and emended the spelling to its correct form, Phymateidae (see also Kuzrutzov *in* Sharp, 1910). Kevan (1952) also used the emended spelling, but as a subfamily: Phymateinae (see below). A family-group name for a subordinate taxon, " sub-tribu " or " sub-tribus " Phymateae, was also introduced by Bolívar (1884), but, as in the case of " Poecilocerae " (above), this usage (and that of subsequent, similarly based family-group names for subordinate taxa) should not be confused with names applicable to the family (or subfamily) as a whole. In view of the proposed replacement of Poekiloceridae and Phymateidae by Pyrgomorphidae (see below), the names of these subordinate taxa can scarcely be regarded as coordinate with those of the higher taxa in the generally accepted sense of the Code.

The name Pyrgomorphidae did not appear in the literature until after Stål (1873) had placed *Pyrgomorpha* in the Phymat[e]idae: first in the vernacular form " Zunft der Pyrgomorphiden " (Brunner von Wattenwyl, 1874) and then in Latin (Brunner von Wattenwyl, 1882). Brunner von Wattenwyl (1874) regarded the " Pyrgomorphiden " as distinct from his " Zunft der Phymatiden," but Bolívar (1884), in the first monograph of the group, did not. He followed Stål (1873), but adopted the name Pyrgomorphidae[5] in place of Phymat[e]idae—which it soon ousted completely from the literature, except for references by Yakobson (1902), Kuzrutzov (*in* Sharp, 1910; Pyrgomorphidae also used) and Kevan (1952). This was because there was a danger of confusion which the family-group name Phymatidae Costa, 1838[6], also in use in the Insecta (Hemiptera) and based on the generic name *Phymata* Latreille, 1802 (see also Yakobson, 1902). Phymatidae (Orthoptera), in fact, appeared to be a junior homonym. Bolívar (1884) presumed that Brunner von Wattenwyl had changed the name of the group because of this, but the latter author (1874) divided the Phymat[e]idae in two; he did not change the name of the group containing *Phymateus*, with which his later (1882) work was not concerned. Other reasons for the general adoption of the name Pyrgomorphidae were: (1) that Bolívar (1904–05, 1909) continued to use Pyrgomorphidae; and (2), that Brunner von Wattenwyl's (1882) monograph, in which the latinized form of the name, Pyrgomorphidae, was established was the standard European work on Orthoptera for a very long time. Only one year later, Finot (1883) adopted the name Pyrgomorphidae. As no generally accepted formal rules of priority governed family-group nomenclature at the time, the name became firmly entrenched in the literature. The fact that Yakobson (1902), a stickler for priorities and the rules of nomenclature generally, had shown that there was in fact no homonymy if the name Phymateidae

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[5] Bolívar (1884), in the title of this work, uses "Pirgomórfinos", but once in the text "*pyrgomorphidae* " appears.

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[6] " Familia Phymatini " of Costa (1838), later changed to Phymatidae by Costa (1852).

was correctly formed (*cf.* Article 55(b) of the 1961 Code), left no impression on orthopterists—probably because his work was in an (at the time) unfamiliar language (Russian), and to judge from its rarity, not generally accessible to western authors.

A more recent general interest among zoologists in establishing the priority rule for family-group names, together with changes in the composition of the group, led Kevan (1952) to suggest a return to the prior (and non-homonymous) name Phymateinae. With the realization of the intricacies of the situation, and in the interests of stability in nomenclature, however, he soon reversed his stand (Kevan, 1953a) and recommended the recognition of the name Pyrgomorphinae. All subsequent authors tacitly supported this view. Dirsh (1961) also made a very brief, but firm, statement preferring Pyrgomorphidae to Phymateidae. The only previous author he mentioned was Yakobson (1902). Only once in more than fifty years (Kevan, 1952), and only a few times in the last ninety years, has any family-group name other than Pyrgomorphidae (or variants of it) been used for other than subordinate taxa. It is therefore proposed that the name Pyrgomorphidae be placed on the Official List of Family-Group Names in Zoology on the grounds that the reintroduction of the oldest available name, Poekiloceridae, or the better known, but synonymous Phymateidae, would upset general usage [Article 23(d) (ii) of the 1961 Code].

The question now arises whether the name Pyrgomorphidae should be regarded as dating from its original proposal in vernacular form (Brunner von Wattenwyl, 1874), or from the time of its first latinization (Brunner von Wattenwyl, 1882). Article 11(e) (iii) of the 1961 Code permits the adoption of the earlier date, provided that the name " has been latinized by later authors and that it has been generally accepted by zoologists interested in the group concerned as dating from the first publication in vernacular form." There is little evidence to establish that the latter condition has been met, as earlier authors, and most recent ones, have not concerned themselves with the matter. No latinized form of the name " Phymatiden " in Brunner's sense was ever used subsequently so that this need not be considered further. However, Brunner von Wattenwyl (1882) himself seems to have regarded his earlier work as initiating the use of the name Pyrgomorphidae, and Bolívar (1884), in adopting it, attributed it to Brunner. It is therefore proposed that 1874 be accepted as the actual date of the name Pyrgomorphidae[7].

But the story does not end here. Family-group names that are not synonymous with one another, and which are based on *Poekilocerus* and *Phymateus* as well as on *Pyrgomorpha*, are in current use for subordinate taxa below subfamily rank. It would seem illogical to recognize such family-group names based on the first two as being of Burmeister (1840)—since his names are synonymous with each other and with Pyrgomorphidae—and they cannot be replaced by names based on *Pyrgomorpha.* It is therefore proposed to recognize the names of these subordinate taxa from their first proposal as subordinate (" subtribal ") names by Bolívar (1884), in the forms " Poecilocera " and " Phymateae "[8]. The name of the subordinate taxon first recognized as such by Bolívar (*op. cit.*) in the form " Pyrgomorphae " must, however, be co-ordinate with Pyrgomorphidae Brunner von Wattenwyl, 1874.

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[7] This proposal has already been made by Kevan (1953a), whose suggestions regarding the whole question of vernacular family-group names have been largely incorporated in the 1961 Code. Chopard (1949) attributed the family name to Brunner von Wattenwyl (1893), but it is not clear why he did so. It cannot have been because this was the first occasion on which full family status was given to the group under this name, for this was not done. A paper by Karsch (1891) seems to qualify for this distinction, previous authors having considered the Pyrgomorphidae (despite a " family " termination) to be a subfamily or tribe of the family Acridoidea (=Acrididae, *sensu lato*).

The question also arises as to the status, authorship and date of another currently recognized, subordinate taxon: namely, that based on *Dictyophorus.* As already mentioned above, the vernacular name, " Dictyophores " of Brullé (1835), is not available, and the earliest name for the group was " subtribus " or " subtribu " Petasiae of Bolívar (1884). According to Article 39 of the 1961 Code, the fact that the type genus *Petasia* is a junior homonym (see above) precludes the use of any family-group name based upon it. The name, author and date of this group, giving a tribal termination, should thus be: Dictyophorini Kirby, 1902—see p. 377.

In view of what has been written above, and in the interests of stability in zoological nomenclature, the following proposals are made for consideration by the International Commission on Zoological Nomenclature:

1. To place the following on the Official List of Family-Group Names in Zoology:
   - (a) Family Pamphagidae, proposed as [Sektion] Pamphagidae by Burmeister (1840, *Z. Ent.* (*Germar*) **2**(1) : 45, 46). Type-genus *Pamphagus* Thunberg, 1815—see 2(a).
   - (b) Family Pyrgomorphidae, proposed as " Zunft der Pyrgomorphiden " by Brunner von Wattenwyl (1874, *Verh. zool.-bot. Ges. Wien* **24** : 225) to replace Phymat[e]idae of Stål (1873), the latter being equivalent, for the purposes of zoological nomenclature, to Phymat[e]idae of Burmeister (1840), an invalid synonym of Poeciloceridae [emend. Poekiloceridae] of Burmeister (1840)—see 4 (a, b, c). Type-genus *Pyrgomorpha* Audinet-Serville, [1838]—see 2(b).
   - (c) Tribe Poekilocerini, proposed as " sub-tribu " (and " sub-tribus ") Poecilocerae by Bolívar (1884, *An. Soc. esp. Hist. nat.* **13** : 20, 24, 447, 496). This name should not be regarded as co-ordinate with Poeciloceridae of Burmeister (1840)—see 4(a)—to which it is subordinate. For the purposes of zoological nomenclature the name should date from 1884, not from 1840. Type-genus *Poekilocerus* Audinet-Serville, 1831—see 2(c).
   - (d) Tribe Phymateini, proposed as " sub-tribu " (and " sub-tribus ") Phymateae by Bolívar (1884, *An. Soc. esp. Hist. nat.* **13** : 20, 25, 456, 497). This name should not be regarded as co-ordinate with Phymat[e]idae of Burmeister (1840), nor of Stål (1873)—see 4(b, c)—to which it is subordinate. For the purposes of zoological nomenclature

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[8] Another solution to the problem would be to replace these family-group names with new ones based on other included genera, but this would be impossible in the case of the first because recent work (*in press*) has now shown the group to be monogeneric.

the name should date from 1884, not from 1840 nor from 1873. Type genus *Phymateus* Thunberg, 1815—see 2(d).

(e) Tribe Dictyophorini, proposed as [subfamily] Dictyophorinae by Kirby (1902 [Feb. 4], *Proc. zool. Soc. Lond.* **1902** : 97; 1902 [Apr. 14] *Trans. ent. Soc. Lond.* **1902** : 85), replacing Petasiae of Bolívar (1884)—see 4(d). For the purposes of zoological nomenclature the name Dictyophorini should date from 1902, not from 1884. Type genus *Dictyophorus* Thunberg, 1815—see 2(e).

2. To place the following in the Official List of Generic Names in Zoology:

(a) *Pamphagus* Thunberg, 1815, *Mém. Acad. Sci. St.-Pétersb.* **5** : 217, 260 (gender : masculine), type-species, by designation by Kirby (1910, *Syn. Cat. Orth.* **3** : 352), *Gryllus Locusta elephas* Linnaeus, 1758*;

(b) *Pyrgomorpha* Audinet-Serville, [1838], *Hist. nat. Ins. Orth.* 583 (gender : feminine), type-species, by designation by Kirby (1910, *Syn. Cat. Orth.* **3** : 324), *Truxalis rosea* Charpentier, 1825 [a junior subjective synonym of *Acrydium conicum* Olivier, 1791];

(c) *Poekilocerus* Audinet-Serville, 1831, *Ann. Sci. Nat.*, Paris (Zool.) **22**: 275 (gender : masculine), type-species, by designation by Kirby (1910, *Syn. Cat. Orth.* **3** : 317), *Poekilocerus sonneratii* Audinet-Serville, 1831 [a junior subjective synonym of *Gryllus pictus* Fabricius, 1775];

(d) *Phymateus* Thunberg, 1815, *Mém. Acad. Sci. St.-Pétersb.* **5** : 214, 216, 217 (gender : masculine), type-species, by designation by Kirby (1910, *Syn. Cat. Orth.* **3** : 312), *Gryllus Locusta morbillosus* Linnaeus, 1758;

(e) *Dictyophorus* Thunberg, 1815, *Mém. Acad. Sci. St.-Pétersb.* **5** : 214, 217, 258 (gender : masculine), type-species, by designation by Kirby (1902, *Trans. ent Soc. Lond.* **1902** : 88), *Gryllus spumans* Thunberg, 1787;

3. To place the following on the Official List of Specific Names in Zoology:

(a) *elephas*, type-species of *Pamphagus* Thunberg, 1815, as published in the combination *Gryllus Locusta elephas* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 431.

(b) *conicum*, type-species of *Pyrgomorpha* Audinet-Serville, [1838], as published in the combination *Acrydium conicum* Olivier, 1791, *Encycl. méthod. Hist. Nat.* **6** : 230.

(c) *pictus*, type-species of *Poekilocerus* Audinet-Serville, 1831, as published in the combination *Gryllus pictus* Fabricius, 1775, *Syst. Ent.:* 289.

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*Kirby (1890, *Sci. Proc. R. Dublin Soc.* **6** : 588) regarded Stål [written Stoll (*sic*)](1873, *Recens. Orth.* **1** : 25) as having made this type-designation erroneously. In this he was incorrect; Stål included more than one species in *Pamphagus* and made no statement that could be interpreted as a type-designation. Kirby (*l.c.*) also argued that *Gryllus serripes* Fabricius (1787, *Mantissa Ins.* **1** : 236) had become the type-species of *Pamphagus* because of the action of Burmeister (1839, *Handb. Ent.* **2** : 615). His argument was unsound, but it could be construed, under Article 69a(iii) of the Code, that *G. serripes*, and not *G. elephas*, should be regarded as the type-species of *Pamphagus*. However, neither Kirby himself (1910, *Syn. Cat. Orth.* 3 : 352) nor any subsequent author had so regarded it. *G. serripes* is a subjective junior synonym of *Gryllus Bulla carinatus* Linnaeus (1758, *Syst. Nat.* (ed. 10) **1** : 427) and *Acrydium dentatum* De Geer, (1773 *Mém. Hist. Ins.* **3** : 496, pl. 42, fig. 3), the latter of which is the type-species of *Porthetis* Audinet-Serville (1831, *Ann. Sci. nat.* **22** : 270), by subsequent designation (Kirby, 1890, *Sci. Proc. R. Dublin Soc.*, **6** : 588). Too rigid an interpretation of Article 69a(iii) would thus lead to considerable confusion in nomenclature, and, in the interests of stability it is therefore desirable not to regard Kirby's 1890 remarks as constituting a proper type-designation.

(d) *morbillosus*, type-species of *Phymateus* Thunberg, 1815, as published in the combination *Gryllus Locusta morbillosus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 431.

(e) *spumans*, type-species of *Dictyophorus* Thunberg, 1815, as published in the combination *Gryllus spumans* Thunberg, 1787, *Mus. Nat. Acad. Upsal.* **5** : 59.

4. To place the following on the Official Index of Rejected and Invalid Family-Group Names in Zoology:

(a) Poekiloceridae, proposed as " Unterabtheilung Poeciloceridae " by Burmeister (1840, *Z. Ent.* (*Germar*) **2**(1) : 45, 46) and based on *Poekilocerus* Audinet-Serville, 1831. Rejected as a *nomen oblitum* and replaced by Pyrgomorphidae—see 1(b). Subordinate taxa should retain names based on the same type-genus as of Bolívar (1884)—see 1(c).

(b) Phymateidae, proposed as " [Sektion] Phymatidae " by Burmeister (1840, *Z. Ent.* (*Germar*) **2**(1) : 45, 46) and based on *Phymateus* Thunberg, 1815. Rejected as a synonym of 4(a) and as a virtual *nomen oblitum*, but not as a homonym of Phymatidae Costa, 1838 (Hemiptera); replaced by Pyrgomorphidae—see 1(b). Subordinate taxa should retain names based on the same type-genus as of Bolivar (1884)—see 1(d).

(c) Phymateidae, proposed independently of 4(b)[?], as " Subf[amilia] Phymatidae " by Stål (1873, *Recens. Orth.* **1** : 3, 8) and as "Zunft der Phymatiden " by Brunner von Wattenwyl (1874, *Verh. zool.-bot. Ges. Wien* **24** : 227), and based on *Phymateus* Thunberg, 1815. Rejected for the same reasons as 4(b) and similarly replaced by Pyrgomorphidae—see 1(b).

(d) Petasiae, proposed as " sub-tribu " (and " sub-tribus ") by Bolívar (1884, *An. Soc. esp. Hist. nat.* **13** : 21, 25, 471, 497) and based on the preoccupied generic name *Petasia* Audinet-Serville, 1831. Invalidated on the basis of junior homonymy of the type-genus—see 5(a).

(e) Tapesiinae, proposed as " Subfam[ilia] Tapesinae " by Bolívar (1904, *Bol. Soc. esp. Hist. nat.* **4** : 308) and based on *Tapesia* Bolívar, 1904. Invalidated on the basis of junior objective synonymy with 1(e).

(f) " les Dictyophores, les Poecilocères, les Phymatées, les Pétasies, les Romalées", vernacular names proposed by Brullé (1835, *in* Audouin et Brullé, *Hist. nat. Ins.* **9** : 220) and based on the generic names *Dictyophorus* Thunberg, 1815, *Poekilocerus* Audinet-Serville, 1831, *Phymateus* Thunberg, 1815, *Petasia* Audinet-Serville, 1831, and *Romalea* Audinet-Serville, 1831. Rejected as mere vernacular generic plurals never directly latinized by subsequent authors nor recognized as of Brullé, 1835.

5. To place the following on the Official Index of Rejected and Invalid Generic Names in Zoology:

(a) *Petasia* Audinet-Serville, 1831, *Ann. Sci. nat.* (*Zool.*) **22** : 278. Invalidated as a junior homonym of *Petasia* Stephens, 1828 (Insecta, Lepidoptera).

(b) *Tapesia* Bolívar, 1904, *Boll. Soc. esp. Hist. nat.* **4** : 309, 310. Invalidated as an objective junior synonym of *Dictyophorus* Thunberg, 1815—see Kevan (1953).

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ANTHUS ROSEATUS BLYTH, 1847 (AVES): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1654

By Finn Salomonsen (*Universitetets Zoologiske Museum, Copenhagen*),
and
Charles Vaurie (*The American Museum of Natural History, New York*)

The well known Roseate, or Hodgson's Pipit of Central Asia and the Himalayas was named *Anthus roseatus* by Blyth (1847, *J. asiat. Soc. Bengal* **16** : 437) and this name had been in almost universal use in the ornithological literature since the time of Hartert (1905, *Die Vögel der paläarktischen Fauna* : 279). The only exception that we have been able to trace is Sharpe (1909, *Hand-List Genera and Species of Birds* **5** : 146) who used *Anthus rosaceus* " Hodgson " J. E. Gray (1844, *Zool. Miscellany* : 83) for the Roseate Pipit, but this last scientific name which had been used by most authors prior to Hartert, is admittedly a nomen nudum. In 1960, H. Deignan (*Bull. British Orn. Club* **80** : 120) called attention to the applicability of the name *Anthus pelopus* J. E. Gray, which had been published one year earlier than *Anthus roseatus* Blyth, in 1846, in J. E. Gray's (*Catalogue of the Specimens and Drawings of Mammalia and Birds of Nepal and Thibet presented by B. H. Hodgson Esq. to the British Museum* : 154). *Anthus pelopus* had been a nomen oblitum until 1960.

We believe this name should not replace the well known *Anthus roseatus* Blyth, and among the more modern works of systematic reference which have followed Hartert in using *Anthus roseatus*, we may cite such important reference publications as: Baker, 1926, *Fauna British India*, Birds **3**; La Touche, 1930, *Handbook of the birds of eastern China* (5); Delacour and Jabouille, 1931, *Les oiseaux de l'Indochine Française* **4**; Cheng, 1958, *Distributional List of Chinese Birds* **2**; Vaurie, 1959, *Birds of the Palearctic Fauna, Passeriformes;* and " Peters," 1960, *Check-list of Birds of the World* **9**.

Ripley (1961, *Synopsis of the birds of India and Pakistan*), and Biswas (1961, *Jour. Bombay Nat. Hist. Soc.* **58** : 454) have followed Deignan in replacing *Anthus roseatus* Blyth by *Anthus pelopus* J. E. Gray, but we note that in the most recent work on the birds of India, Salim Ali's " Birds of Sikkim " published in 1962, the use of *Anthus roseatus* is adhered to.

The International Code provides under Article 23 that nomina oblita are not to be used. Although this Article was adopted in London in 1958, the Code was not published until 1961, and it may be argued that Deignan's 1960 comment on *Anthus pelopus* J. E. Gray revived that name and justified subsequent use after 1960. However, to treat Deignan's action as a valid revival would be giving an effect contrary to the Principle of Conservation adopted in Copenhagen in 1953 (*Copenhagen Decisions on Zoological Nomenclature*, 1953, p. 25) and in force in 1960 when he published.

Admittedly this point is arguable and had resulted in disparity of nomenclature. In order, therefore, to avoid any question and to promote stability and universality in nomenclature, we request that the International Commission:

(1) use its plenary powers to suppress the specific name *pelopus* J. E. Gray,

1846, as published in the binomen *Anthus pelopus*, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) place the name suppressed in (1) above on the Official Index of Rejected and Invalid Specific Names in Zoology;

(3) place the specific name *roseatus* Blyth, 1847, as published in the binomen *Anthus roseatus*, on the Official List of Specific Names in Zoology.

GOBIUS ORCA COLLETT, 1874 (PISCES): PROPOSED USE OF THE PLENARY POWERS TO SET ASIDE A FIRST REVISER SELECTION

Z.N.(S.) 1655

By P. J. Miller (*Zoology Dept., The University, Glasgow W.2, Scotland*)

1. In the present application, the International Commission on Zoological Nomenclature is requested to use its plenary powers to set aside a long overlooked " first reviser " selection of a specific name for a monotypic gobiid genus. The species in question is a small, infrequently encountered inhabitant of offshore waters in the Eastern Atlantic boreal region, and was originally named twice in the same publication. Both specific names have been in use until recently, under the impression that they have referred to separate taxa. The name having page precedence in the original publication was employed by the present author in a modern revision which gives, for the first time, supporting evidence that the two names are synonymous. A much earlier worker, however, fulfilling the requirements of a " first reviser " as laid down in the International Code of Zoological Nomenclature (1961) (Article 24), reached a similar conclusion but chose as senior synonym the second specific name proposed in the original paper. According to Article 24(a) of the Code, " if more than one name for a single taxon . . . [is] published simultaneously . . . relative priority is determined by the action of the first reviser", the rule of page precedence in determining priority, adopted at the Paris Session of the International Commission in July 1948 (*Bull. Zool. Nomencl.* **4** : 330–331; 1950), having been annulled among the Copenhagen Decisions on Zoological Nomenclature (1953, Pt. 2, Sect. 2, Art. 28, pp. 66–67). In the present case, what technically qualifies as the first revision of the two nominal species was long neglected and not adopted by subsequent workers, and the extensive modern treatment of the taxon has appeared under the species name which has page priority but which was not selected in the first revision. By making the present application, it is felt that stability in nomenclature of this notoriously difficult group of bony fishes would be best served by setting aside the nomenclatural result of the hitherto forgotten first revision, and adding to the Official List the specific name currently in use. Full details of the nomenclature of the two nominal species involved are provided in the following paragraphs.

2. In 1874, Robert Collett published a short article which comprised descriptions of two new, supposedly distinct species of European gobiid fishes, named respectively *Gobius orca* (p. 446) and *Gobius scorpioides* (p. 447). Collett (1875) later provided more detailed accounts and also figures of these two nominal species (*G. orca*, pp. 172–175, Pl. III, figs. 1–3; *G. scorpioides*, pp. 175–179, Pl. III, figs. 4–6). The type specimens of both nominal species are in the collections of the Zoologisk Museum, Universitetet i Oslo, Norway: they consist of the holotype of *G. orca* (No. J3999), a male from Espevaer, Hardangerfjord, Norway, dredged in 145–180 m. during July 1873, and two syntypes of *Gobius scorpioides* (Nos. J4020, J4021), both females, from Hvittingsô, Stavangerfjord, Norway, and Lyngholmen, Hardangerfjord, dredged in 37 and 110 m. during July 1872 and August 1873 respectively. Further details of these specimens are given by Miller (1963, p. 218, Table VI).

3. Winther (1877), after examination of an additional specimen (Universitetets Zoologisk Museum, Copenhagen, No. 91), which he referred to *Gobius scorpioides*, proposed that the two species should be removed from the genus *Gobius* L. into a new genus, which was termed *Lebetus*, thus (p. 49):

> "*Lebetus n. gen.*
>
> Den anden af de for vor Fauna nye Arter, Gobius scorpioides Collett, opstilles her som Repraesentant for en ny Slaegt. Udsondringen af denne Art tilligemed den naerstaaende Gob. orca (Collett) fra Gobius Cuv. er motiveret ved den Eiendommelighed, at begge disse Arter mangle det Hovedsaerkjende, de tragtformet sammenvoxede Bugfinner, hvorved Slaegten Gobius fra Cuviers Tid har vaeret skarpt skilt fra de naermest staaende Slaegter." etc.

An English translation of the above by the late Dr. A. Bruun is given by Whitley (1931, p. 156). Whether or not *Gobius scorpioides* may be regarded as the type-species of *Lebetus* by original designation is perhaps debatable under Article 67(c) (i) of the Code. If this is not the case, then the first valid designation of a type-species for the genus (satisfying Article 69(a) (iii)) is that by Jordan (1919, p. 392), who regarded *G. scorpioides* Collett as the " orthotype " (i.e. type by original designation [Frizzell, 1933, p. 659]) of *Lebetus* Winther 1877. As well as including *Lebetus*, Jordan (1920, p. 487) also lists the nominal genus " *Lebistes* Smitt 1899: 543 " with the orthotype given as " *L. scorpioides* Smitt." As noted by Koumans (1931, p. 148, 162), this is clearly an erroneous reference to *Lebetus*, which was recognised by Smitt (1900, p. 554) as a subgenus of *Gobius* containing a single species, *G. scorpioides* Collett. The generic name *Lebistes* is, of course, preoccupied by *Lebistes* Filippi (1862, p. 69) among the cyprinodont teleosts, and, to replace this name within the Gobiidae, Whitley (1930, p. 123) proposed *Butigobius* (type-species " *Lebistes scorpioides* Smitt " by original designation). Later, Whitley (1931) reviewed the nomenclatural situation consequent upon his inability to consult Smitt's work before proposing *Butigobius*, and stated that the latter was to be regarded as a junior synonym of *Lebetus* Winther, of which *Gobius scorpioides* Collett was cited as the type-species by " virtual haplotypy". Since Winther (1877) clearly included the two species *G. orca* and *G. scorpioides* when founding *Lebetus*, it would seem that this statement by Whitley and his choice of type terminology (see Frizzell, 1933, p. 650) implies acceptance of Smitt's conclusion, discussed in the next paragraph, that the two nominal species of *Lebetus* are synonymous. Although quoted in full by Whitley, it was not commented upon by him.

4. In his " Preliminary notes on the arrangement of the genus *Gobius*, with an enumeration of its European species", Smitt (1900) included *Lebetus* Winther as a subgenus of *Gobius*, thus (p. 554): " $\beta\beta$: Cheek longer than the postorbital part of the head.—*LEBETUS*, WINTHER.—*Gobius scorpioides* COLL. (♂ = *Gob. orca*, COLL.)."

In thus defining the relationship between Collett's two nominal species, Smitt cited both synonyms involved, indicated that they apply to the same species, chose *Gobius scorpioides* as the name of this taxon, and therefore, qualifies as " first reviser " of the two species, according to Article 24(a) (i). This revision, which contains no evidence for the union of the two species, was overlooked or ignored in subsequent important references to this complex (e.g. Collett, 1902; Holt & Byrne, 1903; Grieg, 1913; Fage, 1918; Petersen, 1919; Duncker, 1928; De Buen, 1930 a, b, 1931; Koumans, 1931; Ehrenbaum, 1936; Tåning, 1940, etc.*) until noted by Miller (1961, p. 676). When published in 1900, there was no reason for selection of the name *scorpioides* in preference to *orca* on the grounds of appropriateness or of much greater frequency of usage, since, up to that date, the binomen *Gobius scorpioides* had appeared in eight publications, *Lebetus scorpioides* in three, *Gobius orca* in seven, and *Lebetus orca* in two (Miller, 1963, pp. 216–217).

5. Recently, the present author (Miller, 1961; 1963) has confirmed that *Gobius orca* and *G. scorpioides* are based on sexual dimorphism within a single species, with supporting evidence for this conclusion drawn from a study of coloration, meristic characters, body proportions, and distribution. Acting on the order in which these specific names were first published (see para. 1), *orca* was selected as the senior synonym and employed for the species in the binomen *Lebetus orca* (Collett 1874), *Gobius scorpioides* Collett 1874 being regarded as a junior subjective synonym (Miller, 1961, p. 676). Under the former name, a redescription of the species was provided, including, for the first time, details of the modified lateral-line system and the skeleton which have contributed towards a better understanding of systematic position, as well as an account of geographical and ecological distribution, diet, reproduction, and sexual dimorphism (Miller, 1963).

6. Accordingly, in the interest of stability in nomenclature, the International Commission on Zoological Nomenclature is herein asked:—

(1) to use its plenary powers:
- (a) to set aside the selection made by Smitt (1900), as first reviser, of *scorpioides* Collet 1874 in preference to *orca* Collett 1874, both names in the binomina *Gobius scorpioides* and *Gobius orca* having been published in the same work and on the same date, and being currently regarded as applicable to the same taxon, and, having done so,
- (b) to grant precedence to the specific name *orca* Collett 1874, as published in the binomen *Gobius orca*, over *scorpioides* Collett 1874, as published in the binomen *Gobius scorpioides*.

(2) to place on the Official List of Specific Names in Zoology, the specific name *orca* Collett 1874, as published in the binomen *Gobius orca*, to take precedence over the specific name *scorpioides* Collett 1874, as published in the binomen *Gobius scorpioides*, by the Ruling given under the plenary powers in (1) (b) above.

7. I am indebted to Dr. R. M. Bailey, Museum of Zoology, University of Michigan, Ann Arbor, U.S.A., and to Mr. D. Heppell, Zoology Department, Glasgow University, for advice on nomenclatural rulings and procedure. By this help, neither is necessarily committed to supporting this application.

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* given in full by Miller (1963, pp. 249–253).

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COLUBER DOLIATUS LINNAEUS, 1766 (REPTILIA: SERPENTES): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS.

Z.N.(S.) 1656

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For 32 years, from 1917 to 1948, during perhaps the most important period of name-stabilization in the history of U.S. herpetology, the Red Kingsnake was consistently known by the name *Lampropeltis triangulum* (Lacépède, 1788). Important works in stabilization of the name are Blanchard's monograph (1921) of the genus *Lampropeltis*, five editions of Stejneger and Barbour's Checklist of North America's amphibians and reptiles (1917, 1923, 1933, 1939, 1943), and Roger Conant's (1943) revisionary study of the eastern subspecies of the Red Kingsnake. Hundreds of other, mostly lesser, references to various races of this abundantly polytypic and widespread species appeared in this span, all using the specific name *triangulum*.

Prior to 1917 the specific name used for the Red Kingsnake was consistently *Lampropeltis doliata* (Linnaeus, 1766). Many works using this name appeared through the 19th century and up to 1917, but collectively they are not as significant in name-stabilization as those of the 1917–1948 period. In fact it was Stejneger himself (1918) who was responsible for the view (Stejneger and Barbour, 1917) that *Coluber doliatus* Linnaeus is not applicable to the Red Kingsnake.

Klauber (1948) argued that indeed the name *doliatus* was based by Linnaeus upon the Red Kingsnake, and he has been followed since then by most herpetologists, although not by all. Influential works adopting *doliatus* include Schmidt's 1953 edition of the Checklist of North American amphibians and reptiles and Conant's field guide to reptiles and amphibians of eastern United States (1958). On the other hand, through the influence of Mittleman (1952) and Smith (1952), who disagreed with Klauber's conclusions, works of some significance continued to appear throughout this period using the name *triangulum*; Stebbins' (1954) hand book of herpetozoa of western North America, H. M. Smith's Handbook of amphibians and reptiles of Kansas (1956), P. W. Smith's comparable review for Illinois (1961), and a review of Colorado herpetology (Smith, Maslin, and Brown, in press) are examples, and several others exist.

It is therefore apparent that, after 32 years of stability (1917–1948) of nomenclature for this snake there have followed some 15 years of instability. As commonly as the species is cited, obviously a fixation of the valid name, by exercise of the plenary powers of the International Commission on Zoological Nomenclature if need be, is in order.

Two sorts of criteria may be used in approach to the problem: (1) evaluation of data bearing on the identity of *doliatus*, and (2) consideration of the central aim of nomenclature and the Code pertaining thereto—establishment and maintenance of stability of nomenclature. Let us first consider the data bearing upon the identity of *doliatus*.

1. The Identity of *Coluber doliatus*

Information given in Linnaeus (1766 : 376) is extremely brief. It includes only the ventral count (164), caudal count (43), source (" C. D. Garden. Habitat in Carolina"), and a brief colour description: " Minutus, albidus annulis s. scutis nigris, quorum duo semper propiora. Hac fasciae nigrae non perfecte cingunt abdomen, sed lateribus connectuntur cum remotiori, unde perfecti annuli dorsales."

In view of the fact that most recent workers have regarded the color description as ambiguous, we were much surprised to find that on the contrary it is extraordinarily succinctly explicit. We are indebted to a famed Linnaean scholar, Dr. Donald P. Rogers of the Department of Botany of the University of Illinois, for the analysis of Linnaeus' description. The first two words modify " *Coluber*," which is understood; they reveal that the type is " small, whitish "—presumably faded, the rest of the description pertains to the pattern: " (With) rings or (" s " = " sive ") black scales (= black-scaled areas), of which two (are) always nearer (to each other). These black bands (do) not perfectly girdle (the) abdomen, but on the sides are connected with the more remote (black bands), whence (forming) perfect dorsal rings."

Conventionally the type-locality for Garden-collected specimens is accepted as Charleston, South Carolina (Mittleman, 1952), since this is where Garden lived (Klauber, 1948). Thus limited, the type of *doliatus* could not possibly have been a *Lampropeltis*, for the only form of Red Kingsnake occurring near Charleston is the subspecies long known as *elapsoides* (the Scarlet Kingsnake), and that subspecies is explicitly excluded by Linnaeus' color description, since in *elapsoides* the black rings are transverse in direction throughout their extent, not connected with each other (across the red zone) on the sides of the body. It is especially useful, in visualizing Linnaeus' description, to refer to plate 21 in Conant's fieldbook (1958), wherein both *Cemophora* and the Scarlet Kingsnake are illustrated in color in a pose that reveals the disposition of the black rings on the sides of the body. The fact that Linnaeus' snake was small and faded should be kept in mind; the reds and yellows undoubtedly had been lost. Linnaeus describes the narrow lateral connections on the sides of the body between the anterior black ring of one pair of black rings and the posterior ring of the preceding pair, a condition occurring *only* in *Cemophora*, never in *elapsoides*. The lateral connections he described border the red zones, as we now know, although he very likely did not. He did, however, note the formation through the presence of those connections of "perfect dorsal rings," which we interpret as descriptive of the complete black circles that enclose each red blotch on the dorsal and lateral surfaces of *Cemophora*. In fact, a faded *Cemophora* viewed from above gives the definite impression of having a series of large oval light-centered black circles (" perfect dorsal rings") down the length of the body. In the Kingsnake of the Carolinas, on the contrary, the red extends onto the belly and the black rings are transverse throughout their extent, failing to show any evidence whatever of connecting with each other across the red zones on the sides of the body.

This interpretation of Linnaeus' description is so explicitly clear in application to *Cemophora* and equally explicit in exclusion of the Kingsnake that we see no doubt whatever that the name *doliatus* is properly applicable to the Scarlet snake, *Cemophora.*

The scale counts of Linnaeus' specimen were the strongest point on which Mittleman (1952) and Smith (1952) rested their cases, and they remain strongly supportive of their view (which coincides with our present analysis), although the pattern description is now regarded as being as even more strongly conclusive. Through the courtesy of the Charleston Museum we have examined 18 specimens of the Kingsnake from the vicinity of Charleston, and none of them have so few ventrals as 164: 10 males have 166–180, mean 173·4, 8 females 172–181, mean 177·4. Conant (1943 : 10) does list an *elapsoides* from the Carolinas with 164 ventrals, but obviously counts as low as 164 seldom occur in the region of Charleston; Mittleman's estimate (1942 : 23) of about 3 chances in 100 is borne out by our additional data. This count is, however, of frequent occurrence in *Cemophora*, with a recorded range of 156–188 (Brown, 1901); 164 is close to the mean for male *Cemophora* (166·5) for the Carolinas (Mittleman, 1952 : 23).

Certain other indirect evidences advanced by Klauber (1948) in support of the kingsnake allocation for *doliatus* are effectively countered by Mittleman (1952); the discussion does not warrant repetition here.

In conclusion, data now available unequivocally demonstrate that *Coluber doliatus* Linneaus, is applicable solely to *Cemophora* and definitely not to the Red Kingsnake otherwise known as *Lampropeltis triangulum.*

2. Stability of Nomenclature

The nomenclatural adjustment necessary if strict adherence to the Law of Priority is maintained in this case is considerable. The Scarlet snake has been consistently referred to as *Cemophora coccinea* Blumenbach (1788) throughout its history except for a very few, scattered, non-influential uses of *doliatus* after 1952. The law of priority would now require replacement of *coccinea* by *doliata.* Stejneger (1918) realized that very likely *doliatus* was based upon a *Cemophora*, but although he *was* sure enough that it was *not* the Kingsnake to change its name (seemingly influenced by an unwillingness to use a name for a taxon to which it clearly does not apply), he was *not* sure enough that it *was* the Scarlet snake to risk upsetting *its* name. He preferred to leave *doliatus* with the status of a *nomen dubium*—a conclusion certainly not in accord with known facts, but perhaps justified in the interest of nomenclatural stability.

In addition, the preponderant although not universal custom in the past 15 years of application of *doliatus* to the Red Kingsnake and all its subspecies would be reversed. The next available name, *triangulum* Lacépède 1788, did however enjoy considerable popularity in an earlier era and is still used occasionally; therefore the change for this species would be only slightly disruptive.

Maintenance of stability, based upon current preponderant usage, would require fixation of *doliatus* with the race of the Red Kingsnake otherwise known as *elapsoides;* this could be done by appeal to the International Commission on

Zoological Nomenclature. It is strongly distasteful however to apply a name to a species to which it clearly does not belong, so long as there is a reasonable alternative. Contrariwise, clearly it would be undesirable to change the name of *Cemophora coccinea*, which has been so long established. The most desirable alternative, it appears to us, is to appeal for suppression of *doliatus*, thus preserving *coccinea* from *Cemophora*, and restoring *triangulum* for the Red Kingsnake.

We accordingly now request the Commission:

(1) to suppress the specific name *doliatus* as used in the combination *Coluber doliatus* by Linnaeus, 1766 : 376, for purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place said specific name on the Official Index of Rejected and Invalid Specific Names in Zoology;

(3) to place the specific name *triangulum* as used in the combination *Coluber triangulum* by Lacépède, 1788: (table methodique) 86, 331, types originally in the Mus. nat. Hist. nat. Paris, not now in existence; type-locality "America," restricted by Schmidt, 1953 to " vicinity of New York City, New York," on the Official List of Specific Names in Zoology; and

(4) to place the specific name *coccineus* as used in the combination *Coluber coccineus* by Blumenbach, 1788 : 11, pl. 1 (types apparently not in existence; type-locality " Florida "), on the Official List of Specific Names in Zoology.

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RHABDOSPHAERA HAECKEL, 1894 (COCCOLITHOPHORIDA): PROPOSED VALIDATION UNDER THE PLENARY POWERS AND DESIGNATION OF A LECTOTYPE FOR *COCCOLITHUS OCEANICUS* SCHWARZ, 1894. Z.N.(S.) 1658

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1. The genus *Coccosphaera* was proposed by Wallich, 1877, p. 348, with two included species, *C. pelagica* and *C. carteri*, neither designated as type. Loeblich and Tappan (1963, p. 192) designated *C. pelagica* Wallich as type-species of *Coccosphaera*. In 1894, Haeckel (p. 111) used the name *Coccosphaera* for a different type of coccolith (a simple imperforate disk), and proposed the name *Cyathosphaera* for forms such as those included by Wallich in *Coccosphaera* (two imperforate disks connected by a short tube). Hay and Towe, 1962, p. 507, designated *Coccosphaera pelagica* Wallich as the type-species of *Cyathosphaera* Haeckel, 1894.

2. Also in 1894 (p. 346) Schwarz proposed " for all the forms hitherto described, recent and fossil, the one name *Coccolithus oceanicus*, mihi." He illustrated several specimens, of which two were referred to under this name, without citing the source of his material except to state that he had found abundant coccoliths in the Lias of the Dorset coast, but also used material from the Chalk of Taplow and the Gault of Folkestone. However, no type-specimen was designated by Schwarz nor by later workers for *C. oceanicus*. The recognition of this genus hinges upon the nature of the type-specimens, but as the source of those illustrated by Schwarz is questionable, selection of one of these as lectotype would leave the genus in doubt. As originally defined, all previously described coccolithophorids were expressly included, hence any of these is equally available for designation as type. Hence we here designate the specimen figured as *C. pelagica* by Wallich, 1877, pl. 17, fig. 1 as lectotype for *C. oceanicus* Schwarz, 1894.

3. The earliest generic name, *Coccosphaera* Wallich, 1877, was a junior homonym of *Coccosphaera* Perty, 1852, and Lohmann, 1902, p. 93, 136, 137, proposed the new name *Coccolithophora* for *Coccosphaera* Wallich, but this name is a junior synonym of both *Coccolithus* Schwarz, 1894, and *Cyathosphaera* Haeckel, 1894. The generic name *Cyathosphaera* Haeckel, 1894, and *Coccolithus* Schwarz, 1894, had equal status of priority (both November, 1894) and are

isotypic, their type-species both recognized on the basis of *Coccosphaera pelagica* Wallich, 1877. The first reviser to consider their relative status was Poche, 1913, p. 157, who noted that *Coccolithophora* Lohmann, 1902, p. 93, 136, 137 (proposed as a replacement name for *Coccosphaera* Wallich, 1877, *non* Perty, 1852) was itself a junior synonym of both *Coccolithus* Schwarz and *Cyathosphaera* Haeckel. Poche stated that as first reviser he recognized the name *Coccolithus* Schwarz for this taxon and based upon it the family COCCOLITHIDAE. *Coccolithus* thus has priority over *Cyathosphaera*, and on this basis Kamptner (1928, p. 23) and others have used *Coccolithus* for the generic taxon in question [Code Art. 23(e), 24(a)(i)].

4. Huxley (1868, p. 206) described and figured *Cyatholithus*, without including any named species. Loeblich and Tappan (1963, p. 192) designated *Coccosphaera pelagica* Wallich, 1877, as the type-species of *Cyatholithus*, thus making it a senior isotypic synonym of *Coccosphaera* Wallich, 1877, *Cyathosphaera* Haeckel, 1877, and *Coccolithophora* Lohmann, 1902. However, during nearly a century since its original proposal, the name *Cyatholithus* has not been used in combination with any specific name, hence [Code Art. 23(b) (ii)] should be regarded as a *nomen oblitum*. The next available name for this taxon (i.e. *Coccolithus*) has to date (early 1964) been used in 83 different specific combinations for the coccolithophorids, and in the interests of nomenclatural stability should be preserved.

5. Coccolithophorids were also found whose platelets have elongate tubular extensions. These were termed rhabdoliths (" Rhabdolithen ") by Schmidt, and the generic name *Rhabodolithes* was proposed (Schmidt, 1870, p. 680) although no species were named. Voeltzkow later (1902, p. 493) placed two species in the genus, *Rhabdolithes tubifer* [formerly *Rhabdosphaera tubifer* Murray and Blackman, 1898] and *R. claviger* [formerly *Rhabdosphaera claviger* Murray and Blackman, 1898]. The latter, *Rhabdolithes claviger* (Murray and Blackman) Voeltzkow was designated as type-species of *Rhabdolithes* Schmidt by Loeblich and Tappan, 1963, p. 193.

6. *Rhabdosphaera* Haeckel, 1894 (p. 111), was also described for forms with rhabdolith skeletal elements, but without original included species, the first species to be there placed being *Rhabdosphaera tubifer* Murray and Blackman, 1898 (p. 438, 439, pl. 15, figs. 8-10) and *R. claviger* Murray and Blackman, 1898 (p. 438, 439, pl. 15, figs. 13, 14). Ostenfeld (1900, p. 200) removed *R. tubifer* to the genus *Discosphaera* Haeckel, 1894, leaving only *R. claviger* then remaining in *Rhabdosphaera*. *Rhabdosphaera claviger* Murray and Blackman, 1898, was cited as type-species by Hay and Towe, 1962, p. 504. The prior type-designation by Vekshina, 1959, p. 74, of *Rhabdosphaera elliptica* Vekshina, 1959, as type-species of *Rhabdosphaera* was invalid, as this species was not among the first included species [Code Art. 69(a)(ii)]. *Rhabdosphaera* Haeckel, 1894, is thus a junior isotypic synonym of *Rhabdolithes* Schmidt, 1870,

7. During the nearly 100 years since *Rhabdolithes* was originally proposed, only two species have been there referred (solely by Voeltzkow, 1902, as mentioned above), and none have been there placed, nor has the generic name been used (other than the citation in Neave, 1940, p. 27, where it was erroneously credited to Voeltzkow) for over 6 decades, hence *Rhabdolithes* should be regarded

as a *nomen oblitum* [Code Art. 23(b)(ii)]. In contrast, 42 specific combinations have been used with *Rhabdosphaera*. The similarity in spelling and pronunciation of *Rhabdolithes* Schmidt, 1870, and *Rhabdolithus* Kamptner *ex* Deflandre in Grassé, 1952, allows for additional nomenclatural confusion if this taxon were to replace *Rhabdosphaera*.

8. In the interests of nomenclatural stability, and in order to maintain current usage at the generic level and lessen the possibility of confusion of both generic and specific taxa, the International Commission on Zoological Nomenclature is requested:

(1) to use its plenary powers to suppress the undermentioned generic names for the purposes of the Law of Priority but not for those of the Law of Homonymy: *Cyatholithus* Huxley, 1868 and *Rhabdolithes* Schmidt, 1870;

(2) to place the undermentioned generic names on the Official List of Generic Names in Zoology:
  (a) *Rhabdosphaera* Haeckel, 1894 (gender: feminine) (type-species, by subsequent designation by Hay and Towe, 1962, p. 504, *Rhabdosphaera claviger* Murray and Blackman, 1898);
  (b) *Coccolithus* Schwarz, 1894 (gender: masculine) (type-species by original monotypy, *Coccolithus oceanicus* Schwarz, 1894 [=*Cocosphaera pelagica* Wallich, 1877]);

(3) to place the undermentioned specific names on the Official List of Specific Names in Zoology:
  (a) *claviger* Murray and Blackman, 1898, as published in the combination *Rhabdosphaera claviger* (specific name of type-species of *Rhabdosphaera* Haeckel, 1894);
  (b) *pelagica* Wallich, 1877, as published in the combination *Coccosphaera pelagica*, [a senior synonym of *oceanicus* Schwarz, 1894, as published in the combination *Coccolithus oceanicus* and defined by the lectotype designated in the present application];

(4) to place the undermentioned generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:
Cyatholithus Huxley, 1868 and *Rhabdolithes* Schmidt, 1870, as suppressed under the plenary powers under (1) above; and

(5) to place the family group name COCCOLITHIDAE Poche, 1913, (type-genus *Coccolithus* Schwarz, 1894), on the Official List of Family-Group Names in Zoology.

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THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

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NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin:*—

(1) Validation of the probable vernacular usage of " *tergipes* " in a generic sense by Cuvier, 1805; suppression of *Tergipes dicquemari* Risso, 1818, and *Tergipes brochi* Risso, 1818 (Gastropoda). Z.N.(S.) 1044.

(2) Grant of precedence to *Eolis farrani* Alder & Hancock, 1844, over *Amphorina alberti* Quatrefages, 1844 (Gastropoda). Z.N.(S.) 1102.

(3) Suppression of *Kalydon* Hutton, 1884, *Murex mancinella* Linnaeus, 1758, *Triplex foliatus* Perry, 1810, *Fusus duodecimus* Gray, 1843 and *Murex hippocastanum* Linnaeus, 1758; designation of type-species for *Mancinella* Link, 1807, *Polyplex* Perry, 1810 and *Thalessa* H. & A. Adams, 1853 (Gastropoda). Z.N.(S.) 1623.

(4) Designation of type-species for *Gymnetis* MacLeay, 1819 (Insecta, Coleoptera). Z.N.(S.) 1641.

(5) Either (a) removal from the Official List of Specific Names, and suppression for the purposes of the Law of Priority of *Mytilus anatinus* Linnaeus, 1758, or (b) designation of a neotype for *Mytilus anatinus* Linnaeus, 1758 (Bivalvia). Z.N.(S.) 1643.

(6) Emendation to *Stringocephalus* of *Strygocephale* Defrance, 1825 (Brachiopoda). Z.N.(S.) 1646.

(7) Designation of a type-species of *Cryptorhynchus* Illiger, 1807 (Insecta, Coleoptera). Z.N.(S.) 1648.

(8) Validation of *Thunnus* South, 1845 (Pisces). Z.N.(S.) 1652.

(9) Designation of a lectotype for *Turritella kanieriensis* Harris, 1897 (Gastropoda). Z.N.(S.) 1659.

AN APPRECIATION OF THE LATE FRANCIS HEMMING, C.M.G., C.B.E., FOR MANY YEARS SECRETARY OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Arthur Francis Hemming was born on February 9th 1893 and died on February 22nd 1964. Educated at Rugby and Corpus Christi College, Oxford, where he read history, he was of the generation decimated by the war of 1914–1918, but survived with no worse damage than a badly shattered left arm which was not readily apparent even to many of his friends. On being invalided out of the army in 1918 he joined the Civil Service and was assigned to the Treasury. He was at different times private secretary to various ministers, secretary to the Spanish Non-intervention Committee (1936–39), secretary of the Economic Advisory Council (1930–1939), principal assistant secretary in the Ministry of Home Security (1941–1944) and later Under Secretary in the Ministry of Fuel and Power. His distinguished career in this field earned him the awards of C.M.G. and C.B.E. An admirable appreciation by a colleague appeared in *The Times* of February 26th 1964.

Entomology, and especially the butterflies of Europe, first brought the writer of these notes in touch with Hemming when, about 1919, he became a frequent lunch-time visitor to the British Museum (Natural History). An outline of his interests and activities in this field also appeared in *The Times* (March 4th 1964) and is dealt with more fully elsewhere. That a man so brilliant, so productive in so many fields, so practical and methodical in affairs and yet at times so wayward and unorthodox, should be lost to entomology when within sight of producing the major contribution to the systematic study of the European Rhopalocera on which he had been steadily working for years was a tragedy.

It was when the International Congress of Zoology met in 1935 that Francis Hemming began to play the leading role in the realm of zoological nomenclature that was to be his until 1958. The International Commission on Zoological Nomenclature was then, and had been for some years, rather in the doldrums. C. W. Stiles, who had been secretary to the Commission since its inception in 1895 and had carried the burden both tactfully and efficiently for forty years was ageing and felt compelled to resign on grounds of ill health. Hemming was persuaded by Karl Jordan to offer his services. He acted as assistant to the temporary secretary to the Commission (G. L. Peters) during its Lisbon meetings, and his efficiency on that occasion rendered his subsequent election as Secretary in October 1936 a foregone conclusion. It was at this Congress that one was first impressed by Hemming's incredible capacity for concentration on the job in hand; he seemed never to tire and rarely to sleep.

Assuming the Secretaryship of the Commission was one thing: giving effect to it in a way that measured up to the standards of a highly trained and experienced civil servant was quite another. It took nearly two years of Hemming's spare time to sort, index, bind up and file the accumulated papers of the Commission when eventually they reached him from Washington. And there was no money. The first accounts published, covering the period October 1936 to

Francis Hemming, C.M.G., C.B.E. 1893–1964.

31st December 1942 showed a total income of £312 and an expenditure of £133, the total assets being given as £255. Strenuous efforts to raise a fund adequate to finance the publication of the Commission's Opinions, only three of which were issued between 1936 and the outbreak of the 2nd World War, did not prove as successful as was hoped. So, in the middle of the war Hemming plunged boldly into the gamble of launching the *Bulletin of Zoological Nomenclature* with the purpose of providing on the one hand information on all questions before the Commission and on the other hand money with which to carry on its work. The gamble came off. By careful management the *Bulletin* began to show a profit. To safeguard the profits which slowly accumulated he formed in 1947 the *International Trust for Zoological Nomenclature*, incorporated as a company under British law, to hold the assets of the Commission and to act as its agent in all business matters. Hemming himself became the managing director of the Trust. The far-sighted wisdom of this action became particularly apparent when Hemming was forced to resign the secretaryship of the Commission in 1958: the Trust was able at once to hire office accommodation and to engage and pay suitable staff to take over the work of the Commission and to carry it on till fresh arrangements could be made. That Hemming had provided all these services free, in his own house, was a major factor in building up the resources of the Trust to a level which should prove adequate to ensure the continuance of the Commission's operations at least at the present level for many years to come; it is also a matter which has largely escaped the recognition it deserves.

The Bulletin, under Hemming's editorship, ran to 16 volumes. The parallel series of *Opinions and Declarations* ended with the completion of Volume 20, but consisted actually of 25 volumes due to the subdivision of Volume I into 6 independent volumes. One hundred and three *Directions*, a number of *Declarations* and 435 separate *Opinions* were published in this series, every one written by Hemming himself. In the 40 years preceding his secretaryship, only 133 opinions had been issued.

Of a man who cultivated the whole field of zoological nomenclature, from its principles to their application, it is difficult to single out any one aspect of his work as outstanding. His basic approach, however, characteristic of his whole temperament, probably holds the key. His attitude was fundamentally constructive. His desire to build something of permanent value is seen for example in his immense efforts, at Paris in 1948, at Copenhagen in 1953, and in his preparations for the London Colloquium in 1958, all aimed at establishing not only finality, but acceptable finality in the Rules of Nomenclature. He was at great pains to reconcile conflicting views—the argument concerning binary versus binominal nomenclature is a case in point—yet on a matter of principle or obedience to the instructions of the Commission he would be quite unyielding. His handling of what became known as the Meigen case illustrated the latter point. The issue essentially was whether or not the names in Meigen's 1800 paper should be accepted. Hemming conceived it to be his duty, under the completeness of opinions ruling (for which incidentally he himself was mainly responsible) to show what would be the repercussions of either course of action. The resultant documentation, completed by R. V. Melville after Hemming's resignation, occupied 56 pages of the Bulletin when printed, and even then was admittedly incomplete. This striving for completeness, admirable in theory, was in practice often a hindrance, for it led Hemming into by-ways and side issues that could more profitably have been left to the specialists whose concern they were. It is tempting to think that had Hemming been less determined to seek perfection in everything he did, he might well have achieved even greater results. What he did achieve is phenomenal enough for the spare time product of a very busy administrator.

If it be granted that a code of rules for zoological nomenclature was first established in a widely acceptable form at the Berne Congress in 1904—and published as the "*Règles internationales de la nomenclature zoologique*" by Blanchard in 1905—it must also be acknowledged that the *Code* as it now exists —published in 1961—owes far more to Francis Hemming than to any other. Although widely differing in form and presentation from the Code which Hemming himself would have produced, it nevertheless is stamped throughout with his mark. His generous approval of it, freely offered, was the acid test, and proved his labours not to have been in vain. Richard Melville who took over in one of the most difficult moments of Hemming's career has this to say of him in a personal communication:

'Retirement from the Secretaryship of the Commission enabled Hemming to devote more of his energies to his favourite Rhopalocera; and it was well that he had these resources at hand, for the treatment given by the London Congress to his efforts to extend and strengthen the Code naturally affected him deeply. He handed on to his successor the organisation and working methods he had so thoroughly established, and also allowed him to draw freely on his own experience. But he scrupulously avoided any attempt to influence the course of events and confined his participation in the Commission's affairs to that required of an ordinary member.

'Perhaps his most fundamental contributions to progress in nomenclature were to draw a clear distinction between the concepts of availability and validity, with the consequent definition of clear criteria for distinguishing between the objective and subjective aspects of individual cases, and in defining the concept of the nominal taxon. He was criticised for taking a definite stand on points —for example, secondary homonymy—where the opposite point of view is equally tenable. His opponents did not always give him credit for having identified and clarified problems whose very existence had not been recognised before, but which had to be dealt with if a satisfactory Code was to be established. It was not that he refused to see the alternative solutions to such problems, only that he instinctively preferred that solution which gave most authority to the Code and the Commission. This was the fault of an idealist, and it caused him to overestimate the heights to which he could lead the Commission and the zoological public in general. But " A man's reach should exceed his grasp, or what's Heaven for? ".'

N. D. RILEY

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE
FINANCIAL REPORT—1963

The Income and Expenditure Account for 1963 shows a balance on the year's working of £364 6s. 11d. compared with £3,580 in 1962, which included £2,700 from sales of the International Code, while the current year includes only £860 from this source.

Receipts from the sales of the Bulletin are almost the same as in 1962 but, with regret, I have to report a reduction in the grant from UNESCO from £357 in 1962 to £179 in 1963.

On the expenditure side, administrative expenses are practically the same as last year, but the cost of printing is £700 higher as a result of printing more pages in each issue. Despite this there was no increase in the subscription price of the larger volume.

INTERNATIONAL TRUST FOR

Incorporated under the Companies

Balance Sheet—

1962 £	£		£ s. d.	£ s. d.
		Revenue Reserves—		
	10,000	General Reserve	10,000 0 0	
	2,980	"Official List" Suspense Account (per separate account)	3,079 15 1	
	3,946	Income and Expenditure Account (per separate account)	4,310 6 6	17,390 1 7
16,926				
		Special Donation unappropriated—		
	1,200	As at 31st December, 1962	1,200 0 0	
1,200	—	*Deduct* Expenses during year to date of delegates to the International Congress of Zoology in Washington	947 17 9	252 2 3
		Current Liabilities—		
809		Sundry Creditors		719 16 0
£18,935				£18,361 19 10

REPORT OF

We have obtained the information and explanations which we considered necessary, and in our opinion
(1) The above balance sheet and annexed income and expenditure account give a true and fair view of the
ended on that date.
(2) Proper books have been kept and the accounts are in agreement therewith and give, in the prescribed

Finsbury Circus House,
Blomfield Street,
London, E.C.2.
29th June, 1964

ZOOLOGICAL NOMENCLATURE

Act, 1929 (Limited by Guarantee)

31st December, 1963

1962 £	£	£		£ s. d.	£ s. d.	£ s. d.
			Fixed Assets—			
			Office Equipment—			
	838		Book value at 1st July, 1948 and Additions since at cost		877 10 6	
	456		*Less* Depreciation and amount written off		498 10 6	
382						379 0 0
			Investments at cost—			
	2,078		£2,500 2½% Savings Bonds 1964/67		2,078 10 6	
	2,249		£2,500 3% Savings Bonds 1955/65		2,248 16 9	
			(Market Value at date £4,788 Ditto 1962 £4,719)			
	4,327				4,327 7 3	
	3,000		County Borough of Preston Temporary Loan		3,000 0 0	
7,327						7,327 7 3
			Current Assets—			
		1,100	Amounts due for Publications at valuation	1,000 0 0		
		38	Sundry Amounts prepaid ..	— — —		
		38	Income Tax Recoverable ..	37 15 7		
	1,176				1,037 15 7	
	10,050		Balances at Bank and Cash in Hand		9,617 17 0	
11,226						10,655 12 7
			(Note—The Stock of Publications has not been valued)			
£18,935						£18,361 19 10

FRANCIS J. GRIFFIN } Members of the Committee
N. D. RILEY } of Management

THE AUDITORS

state of the Trust's affairs at 31st December, 1963 and of the excess of income over expenditure for the year

manner, the information required by the Companies Act, 1948.

W. B. KEEN & CO.,
Chartered Accountants.

Income and Expenditure Account for

1962 £	*1962* £	EXPENDITURE	£ s. d.	£ s. d.
		Administration Expenses—		
	3,172	Salaries and National Insurance	3,256 0 2	
	723	Office Expenses	665 8 0	
	53	Audit Fee	52 10 0	
	3,948		3,973 18 2	
	50	*Less* Proportion allocated to "Official List"	50 0 0	
3,898				3,923 18 2
43		Depreciation of Office Equipment		42 11 11
		Printing and Distribution of Publications—		
	8	International Code	20 12 7	
	1,884	Bulletin of Zoological Nomenclature	2,525 16 9	
1,892				2,546 9 4
5,833				6,512 19 5
3,580		Balance, being Excess of Income over Expenditure for the year, carried down		364 6 11
£9,413				£6,877 6 4
10,000		Transfer to General Reserve		— — —
3,946		Balance carried forward to Balance Sheet		4,310 6 6
£13,946				£4,310 6 6

"Official List"

for the year ended

1962 £		£ s. d.
50	Proportion of Administration Expenses	50 0 0
2,980	Balance carried forward to Balance Sheet	3,079 15 1
£3,030		£3,129 15 1

the year ended 31st December, 1963

1962 £	£	INCOME	£ s. d.	£ s. d.
		Sales of Publications—		
	2,688	International Code	861 18 1	
	617	Opinions and Declarations	36 12 3	
	5,201	Bulletin of Zoological Nomenclature	5,261 4 7	
	4	Copenhagen Decisions on Zoological Nomenclature ..	7 2 6	
8,510				6,166 17 5
14		Donations		13 18 4
317		Interest Received on Investments (gross)		332 10 0
215		Interest on Bank Deposit		185 9 2
357		Grant from U.N.E.S.C.O. per International Union of Biological Sciences		178 11 5
£9,413				£6,877 6 4
10,366		Balance brought forward from 1962		3,945 19 7
3,580		Balance brought down		364 6 11
£13,946				£4,310 6 6

Suspense Account

31st December, 1963

1962 £		£ s. d.
2,858	Balance brought forward from 1962	2,979 17 7
172	Sales of Publications	149 17 6
£3,030		£3,129 15 1

COMMENTS ON THE POSSIBLE USE OF THE PLENARY POWERS AND OTHER RECOMMENDATIONS TO THE COMMISSION BY Dr. HENNING LEMCHE, Z.N.(S.) 1044 and Z.N.(S.) 1102–1107

(see volume 21, pages 35–57)

By Robert Burn (3 *Nantes Street, Newtown, Geelong, Victoria, Australia*)

The seven applications by Dr. Henning Lemche to the Commission containing recommendations for the possible use of the Plenary Powers and proposed additions to the Official List are deserving of the highest praise. Dr. Lemche has undertaken a tremendous task in attempting to unravel the complexities of the nomenclatorial problems of the Eolidoidean Nudibranchia. I for one am very grateful to Dr. Lemche for his actions in this direction, because, whether or not his applications are approved, they will remain a valuable source of reference for many years to come.

There are however two comments arising from Dr. Lemche's applications which I wish to place before the Commission.

1. Z.N.(S.) 1105, pages 50–51. It will be a pity to see *Cratena* Bergh, 1864, replaced by *Rizzolia* Trinchese, 1877, just when the former taxon has been accepted in its type-species concept. Marcus (1957, *J. Linn. Soc. London*, Zool. 43 (292) : 472) has introduced *Cratena kaoruae* as a new Brazilian species and later on Marcus and Marcus (1960, *Ak. Wiss. Lit. Mainz*, 1959 (12) : 922) added *Cratena phylloda* from the Maldive Islands. The writer has introduced *Cratena macphersonae* (1962, *Mem. Nat. Mus. Melbourne*, 25 : 118) from the Victorian coast-line. These three species are each generically placed according to Macnae's research on the genus (1954, *Ann. Natal Mus.*, 13 : 9, 28). I do believe that the confusion surrounding *Cratena* has righted itself in the last decade; the substitution of *Rizzolia* will do little to clarify the present state of the nomenclature.

With regard to the species of *Rizzolia* found in the literature, it should be noted that one species at least, *R. australis* Bergh (1884, *Rep. Scient. Res.* "*Challenger*", 26, Zool. 10 : 27), is generically different to the *Cratena* (synonym *Rizzolia*) genus concept, particularly in so far as the shape of the liver groups is concerned. *R. australis* is a junior synonym of *Flabellina ornata* Angas (1864, *J. Conchyliol.*, ser. 3, 4 : 67), the type-species of the genus *Austraeolis* Burn (1962, *Mem. Nat. Mus. Melbourne*, 25 : 120).

2. Z.N.(S.) 1106, pages 52–55. It seems that *Trinchesia* Ihering, 1879, is the valid replacement for the genus concept of the species hitherto referred to *Cratena* auctt. (nec Bergh, 1864) and *Catriona* Winckworth, 1941, though the latter name remains available as it has a different type-species to that of *Trinchesia*. In a paper published since Dr. Lemche submitted his application to the Commission, the writer has proposed (1963, *J. Malac. Soc. Aust.*, 7 : 13) a new subgenus, *Eurycatriona*, of the genus now to be called *Trinchesia*. Both *Eurycatriona* and *Trinchesia* have the same type-species, *Doris caerulea* Montagu, 1804. Therefore, *Eurycatriona* is a very junior synonym of *Trinchesia* and my subgenus must revert to the latter taxon. The subgenus *Catriona* formulated in the same publication, remains in use.

COMMENT ON THE PROPOSED USE OF THE PLENARY POWERS TO GRANT PRECEDENCE TO THE FAMILY-GROUP NAME CUTHONIDAE OVER TERGIPEDIDAE AND TO STABILIZE SOME SPECIFIC NAMES IN THE GENUS KNOWN AS *EUBRANCHUS* FORBES, 1838. Z.N.(S.) 1044

(see present volume, pages 35–39)

By David Heppell (*Dept. of Zoology, The University, Glasgow, Scotland*)

Malacologists will be grateful for Dr. Lemche's scholarly presentation of many of the problems complicating the nomenclature of that difficult and taxonomically still unstable group, the Nudibranchia. The pruning away of old *nomina dubia* and the addition of established taxa to the appropriate Official Lists are valuable contributions to nomenclatural stability. Dr. Lemche's seven applications in Part 1 of the *Bulletin of*

Zoological Nomenclature **21** involve seventy-five separate proposals, many of which are interdependent: it should not be assumed, however, that an " all or nothing " solution is the only one possible. In the case of Z.N.(S.) 1104 and Z.N.(S.) 1107, I am in complete agreement with all of the proposals made and recommend their approval to the Commission. In the case of the other five applications, however, while supporting unconditionally many of the proposals made, I should like to bring a number of alternative proposals before the Commission for their consideration.

I would not agree that the quotation from Cuvier, 1805, necessarily shows that the name " *tergipes* " was not used there in a vernacular sense. If we were to substitute for instance, " *éolides* " for " *tergipes* " in the relevant sentence, it will be seen that no article " les " is required. If we were to condone the acceptance of such a usage without comment, we should be opening the door to too many other quasi-vernacular names of a similar nature. Neither can I agree, on turning to Risso's work, that " there is no *Tergipes* Risso, 1818". On the contrary, Risso's usage fulfils all the requirements for the valid establishment of a new genus, and includes two new nominal species, *T. dicquemari* and *T. brochi*. Unfortunately, Dr. Lemche does not tell us whether he considers Risso's species to be referrable to his concept of the genus, nor are they mentioned by Mme. Pruvot-Fol in her work on the French opisthobranchs, although Nice is the type-locality for both species. On reading Risso's descriptions, however, it does not appear that they are congeneric with *Limax tergipes* Forskål and, probably, both his species should be considered *nomina dubia* and rejected under the plenary powers. *Tergipes* Risso would not, in any case, be a satisfactory substitute for *Tergipes* Cuvier, as it contains no suitable type-species. The name does, however, unquestionably exist, and I believe it should be placed on the Official Index as a junior homonym. I would, therefore, support Dr. Lemche's proposal to place *Tergipes* Cuvier, 1805, on the Official List, but consider that this action would require the use of the plenary powers.

Every taxonomist knows that the nomenclatural type, in its modern concept, is *not* necessarily the most typical or representative element of the taxon based on it. I find it difficult, therefore, to understand Dr. Lemche's concern at the name TERGIPEDIDAE being founded on the " atypical " genus *Tergipes*. I know of no-one who objects to the family name CARDIIDAE, for instance, on the grounds that it is based on the atypical genus *Cardium* to which only two or three species are properly referrable. Before the foundation of the modern type concept, it was certainly accepted practice to change the type, be it specimen, species, or genus, in accordance with the changing subjective limits of the taxon, and it would appear that Dr. Lemche is now advocating a partial return to such a fluid interpretation.

The name TERGIPEDIDAE in its wider sense is found not only in Thiele but also in other works of reference. Winckworth, who had a particular interest in nudibranch systematics and nomenclature, used it in his check-list of British marine Mollusca and this usage has, moreover, been followed by all recent British workers. Of Thiele's action, Dr. Lemche says: " Thiele, uniting these two family groups [CRATENINAE and TERGIPEDINAE], followed the rule of using the oldest generic name as the basis for the family name, thus accepting TERGIPEDIDAE. . . . The viewpoint behind this action has never been accepted by the Commission nor by any Congress." This statement is not only irrelevant but presumptuous, for how can Dr. Lemche pretend to know Thiele's motives. Thiele's action was precisely that *laid down by the present Code* for the union of family-group names and is, therefore, *acceptable*. A family name may be based on any of the included nominal genera [Article 64], the oldest competing valid family-group name having priority [Article 23(d)]. The viewpoint that a family-group name should be based on the most " typical " of the included genera is certainly no more than a non-retroactive recommendation [64A].

If the specific name *lacinulata* be placed on the Official Index, there would seem to be no real reason for demanding that *exigua* and *pallida* be placed on the Official List, once this " threat to stability " has been removed. There would of course be no objection to such action were it not that such a course might prejudice to some extent the taxonomic judgment of future workers, especially in the event of Dr. Lemche's request for the suppression of the specific name *tricolor* [Z.N.(S.) 1102] being acceded to. This point is discussed in my comment on that application below.

In conclusion, I support the following proposals of Dr. Lemche in the present application, and recommend their approval by the International Commission: (1) (b) (i), (ii) and (iii), (2) (b); (3) (a), (b), (c) and (d), though the last two I would consider unnecessary if (1) (b) (i) is accepted; (4); (5) (a) (i), (ii) and (iii); (5) (b), (c), (d) and (e); and (6) (b). For the rest, I beg leave to lay the following alternative proposals before the Commission for their consideration:

(1) to use the plenary powers:

(a) to validate the probable vernacular usage of the name " *tergipes* " in a generic sense by Cuvier, 1805;

(b) to suppress the following specific names for the purposes of the Law of Priority but not for those of the Law of Homonymy:
  (i) *dicquemari* Risso, 1818, as published in the binomen *Tergipes dicquemari*;
  (ii) *brochi* Risso, 1818, as published in the binomen *Tergipes brochi*;

(2) to place the family-group name CUTHONIDAE Odhner, 1934 (type-genus *Cuthona* Alder & Hancock, 1855), on the Official List of Family-Group Names in Zoology [but without a grant of precedence over TERGIPEDIDAE];

(3) to place the generic name *Tergipes* Cuvier, 1805 (gender : masculine) (validated under the plenary powers in (1) (a) above), type-species by monotypy *Limax tergipes* Forskål, 1775, on the Official List of Generic Names in Zoology;

(4) to place the generic name *Tergipes* Risso, 1818 (a junior homonym of *Tergipes* Cuvier, 1805), on the Official Index of Rejected and Invalid Generic Names in Zoology;

(5) to place the following specific names, suppressed under the plenary powers in (1) (b) above, on the Official Index of Rejected and Invalid Specific Names in Zoology;

(a) *dicquemari* Risso, 1818, as published in the binomen *Tergipes dicquemari*;

(b) *brochi* Risso, 1818, as published in the binomen *Tergipes brochi*.

COMMENT ON THE PROPOSED DESIGNATION UNDER THE PLENARY POWERS OF A TYPE-SPECIES FOR *EUBRANCHUS* FORBES, 1838, WITH SUPPRESSION OF SEVERAL NOMINA DUBIA: Z.N.(S.) 1102

(see present volume, pages 40–44)

By David Heppell (*Dept. of Zoology, The University, Glasgow, Scotland*)

I should like to make an objection to the proposal to suppress the specific name *tricolor*, the sole original species of the genus *Eubranchus*, and to the proposed consequent transfer of that generic name to a new concept based on a type-species hitherto considered by many authors not to be specifically distinct from *E. tricolor*. However convenient Dr. Lemche's proposals may be for Scandinavian zoologists, it is doubtful whether many British malacologists would consider that this is a case where the designation of a new type-species, with suppression of the name commonly in use hitherto, contributes anything towards the stability of accepted usage of the generic name. Of the genus *Eubranchus*, Pruvot-Fol, 1954, says: " Un grand nombre d'espèces ont été attribuées à ce genre; mais seul la couleur servait à distinguer toutes celles d'Europe, sauf trois. Aujourd'hui on tend à en réunir la plupart en une seule espèce [*tricolor*] très variable (quant à la couleur seulement), aucune différence n'ayant pu être décelée dans leur anatomie, leur dentition, leur mâchoires; les diverses espèces sont trouvées de compagnie et s'accouplent les unes avec les autres ainsi que cela a été observé plus d'une fois. Seule l'espèce *exigua* est vraiment distincte et mérite de former un genre ou sous-genre; en outre Eliot tient pour espèce distincte *E. vittata*." In fact, Pruvot-Fol recognises three " good " species of European *Eubranchus*: *tricolor*, *vittatus* and *cingulatus*, *exigua* being placed in the genus *Capellinia* Trinchese, 1874. The nominal species *farrani* Alder & Hancock and *alberti* Quatrefages are considered by her to be synonymous with *tricolor*, while *pallida* is regarded as a variety of that species. Apart from *alberti*, three nominal species are involved in this issue: *tricolor* (the type-species of *Eubranchus* by monotypy), *pallidus* and *farrani*. If Dr. Lemche's proposals are approved, *tricolor* will be suppressed in favour of the junior subjective synonym *viridula*—a name which has been used only by a few Scandinavian workers; *pallida* will be placed on the Official List in Z.N.(S.) 1044; and *farrani* will become the type-species under the plenary powers of a restricted genus, also bearing the name *Eubranchus*, but which will not include its type-species as at present understood. This seems to me to be making " confusion worse confounded " rather than contributing to stability of nomenclature.

By many workers the taxon *pallidus* has been considered as a variety or sub-species of *tricolor* and so, as Dr. Lemche himself admits, has *farrani*. If legislation is adopted to make *tricolor* an invalid synonym of the type-species of *Egalvina*, and *farrani* the type of the reconstituted genus *Eubranchus*, what name shall the worker use who considers *farrani* to be but a sub-species of *tricolor* (=*viridula*) — *Eubranchus farrani viridula* or *Egalvina farrani viridula*?—or should he, for the sake of convenience but contrary to his taxonomic judgment, place his sub-species in separate genera? As Dr. Lemche does not mention the species *exigua* in this context, although he wishes it to be placed on the Official List in his previous application [Z.N.(S.) 1044], we do not know whether he considers it a " true *Eubranchus* " or not, so we do not know whether the adoption of the genus *Capellinia* for that species has any bearing on the present problem. Contrary to the conclusions reached by Dr. Lemche, I consider that the resurrection of the name *Amphorina* would alleviate this problem rather than add to the existing confusion. Its sole original species *alberti* was published in the same month as *farrani* and these two names are generally considered to be conspecific. The plenary powers could be invoked to grant seniority to the name *farrani*, which would then become a senior subjective synonym of *alberti*, and the name *Amphorina* would become available for the group of *Eubranchus farrani*, allowing *Eubranchus* to be retained for *tricolor* if the genus is dismembered. *Amphorina* would of course be a junior subjective synonym of *Eubranchus* for anyone considering *farrani* and *tricolor* to be congeneric.

In requesting that the family-group name EUBRANCHIDAE be placed on the Official List, Dr. Lemche gives its type-genus as *Eubranchus* Forbes, 1838; if his proposals in this application are adopted, we might adapt one of his own expressions and state: " There is no *Eubranchus* Forbes, 1838, only *Eubranchus* Lemche, 1964! "

In conclusion, I should like to register my support for the following proposals in this case: (1) (b) (i); (1) (c) (i), (ii) and (iii); (4) (a) and (d); (5) (b) and (c); and (6). In place of the others, I beg leave to lay the following alternative proposals before the International Commission for their consideration:

(1) to use the plenary powers to grant precedence to the specific name *farrani* Alder & Hancock, 1844, as published in the binomen *Eolis farrani*, over the specific name *alberti* Quatrefages, 1844, as published in the binomen *Amphorina alberti;*

(2) to place the generic name *Eubranchus* Forbes, 1838 (gender : masculine), type-species by monotypy *Eubranchus tricolor* Forbes, 1838, on the Official List of Generic Names in Zoology;

(3) to place the specific name *tricolor* Forbes, 1838, as published in the binomen *Eubranchus tricolor* (type-species of *Eubranchus* Forbes, 1838) on the Official List of Specific Names in Zoology.

COMMENT ON THE PROPOSED EMENDATION UNDER THE PLENARY POWERS TO *CAVOLINIA* OF *CAVOLINA* ABILDGAARD, 1791. Z.N.(S.) 1103

(see present volume, pages 45–47)

By David Heppell (*Dept. of Zoology, The University, Glasgow, Scotland*)

As the generic names *Cavolina* Bruguière and *Cavolina* Abildgaard, published in the same year, were both based on the modern patronymic " Cavolini," one might consider the spelling " *Cavolina* " to have been an incorrect original spelling in both cases, requiring automatic correction wherever found. According to Article 32(c) such a name does not enter into homonymy, so Dr. Lemche's proposal to suppress the generic name *Cavolina* Bruguière for the purposes of the Law of Priority but not for those of the Law of Homonymy would seem to be justified, to prevent any subsequent validation of the name by another author. " *Cavolinia* Menke, 1845 " was not a separate name but a justified emendation by Menke of *Cavolina* Bruguière and, as such, takes the date and authorship of the original spelling [Article 33(a)]. Thus we have, according to the Code, not only *Cavolinia* Abildgaard, 1791, but also *Cavolinia* Bruguière, 1791. This anomaly could be obviated by giving a grant of precedence under the plenary powers in favour of *Cavolinia* Abildgaard. The name to be applied to the nudibranch genus after suppression of *Cavolinia* Bruguière will be discussed in my comment on Z.N.(S.) 1105 below.

In conclusion, in accordance with what is written above, I should like to recommend that the International Commission approve the following of Dr. Lemche's proposals in the present application: (2); (3); (4); (5) (b), (d) and (e). I beg leave to lay the following alternative proposals before the Commission in place of the others:

(1) to use the plenary powers to grant precedence to the generic name *Cavolinia* Abildgaard, 1791 (correction of *Cavolina*), over the generic name *Cavolinia* Bruguière, 1791 (correction of *Cavolina*);

(2) to place the generic name *Cavolinia* Bruguière, 1791 (correction of *Cavolina*), (a junior homonym of *Cavolinia* Abildgaard, 1791, according to the ruling given under the plenary powers in (1) above), on the Official Index of Rejected and Invalid Names in Zoology.

If these alternatives are adopted, proposals (1) (a) and (b), and (5) (f) of Dr. Lemche's application will no longer be required, while his proposals (5) (a), (c) and (6) should be emended to delete references to the use of the plenary powers.

By Myra Keen (*Stanford University, California, U.S.A.*)

Studying the several proposals submitted by Dr. Henning Lemche (B.Z.N. **21**, pts. 1–2, Mar.–Apr. 1964) relatively to names in the Opisthobranchia, I find myself in agreement with all but one. Favourable action would seem to be in the interests of stability of nomenclature. However, on Z.N.(S.) 1103 (pp. 45–47), relative to the pteropod name *Cavolina*, I feel that more is to be said for retaining the spelling *Cavolina* of Abildgaard. I cannot agree with the statement that most authors since 1847 have accepted Gray's alteration. Making a census of check lists and systematic papers, taken at random from the library shelves, I find that of 16 works citing the genus—these all having appeared since 1850—11 use the spelling *Cavolina* and 5 *Cavolinia*. To stabilize the name as *Cavolina* would have the further advantage that this is in harmony with the indicated priority in two principal nomenclators—Sherborn's *Index Animalium*, where *Cavolina* Abildgaard, 1791, is cited in Part C of the section 1801–1850, having been omitted in the earlier volume; and Neave's *Nomenclator generum et subgenerum*. I therefore feel that emendation to *Cavolinia* is not in the interests of stability.

Bull. zool. Nomencl., Vol. 21, Part 6. December 1964.

COMMENT ON THE PROPOSED SUPPRESSION UNDER THE PLENARY POWERS OF THE GENERIC NAME *CRATENA* BERGH, 1864, IN ORDER TO VALIDATE THE GENERIC NAME *RIZZOLIA* TRINCHESE, 1877. Z.N.(S.) 1105

(see present volume, pages 50–51)

By David Heppell (*Dept. of Zoology, The University, Glasgow, Scotland*)

I should like to make an objection to the proposed suppression of the generic name *Cratena* Bergh, 1864. The type of *Cavolinia* Bruguière, 1791 being *Doris peregrina* Gmelin, 1791, by subsequent designation of Gray, 1847, the next available name *Cratena* Bergh, an objective synonym, would become the valid name for this group of nudibranchs on the suppression of Bruguière's name under the ruling requested in Z.N.(S.) 1103. The correct type-species of *Cratena* was brought to the notice of malacologists over twenty years ago by Winckworth in the publication referred to by Dr. Lemche, and there is no reason why subsequent workers should not have adopted his conclusions. Recently this view has been endorsed by Macnae, 1954. It is hardly just to those workers who endeavour to apply correct nomenclatural procedures to suspend the rules in favour of those who persistently disregard not only the Code but also the published findings of their colleagues. The present confusion in this group has resulted partly from the primitive state of the taxonomy and partly from inattention to such essentials as the correct type-species of the genera involved. We cannot hope to alter any confusion which has prevailed in the past history of the names, whatever action we may now take; we can only attempt to prevent further confusion in the future. In this present case, confusion would be better resolved by a more rigid application of the Code rather than by suspension of the names in current use. Winckworth and Macnae have clearly established the correct usage for the name *Cratena* and it is that usage which should now be ratified; there is no need to revert to any other concept. In the interests of stability it only remains for the Commission to place the names *Cratena* and CRATENIDAE on the appropriate Official Lists. With CRATENIDAE based on *Cratena* Bergh, 1864, rather than on *Cratena* auctt. non Bergh, it will not compete with the taxa TERGIPEDIDAE and CUTHONIDAE from which it is taxonomically distinct [see Z.N.(S.) 1044]. If this alternative proposal is accepted, I would further suggest that the generic name *Rizzolia* Trinchese, 1877, be placed on the Official Index as a junior objective synonym of *Cratena* Bergh, 1864.

In conclusion, in view of what has been written above, I beg leave to submit the following alternative proposals for the consideration of the International Commission:

(1) to place the family-group name CRATENINAE Bergh in Carus, 1889 (type-genus *Cratena* Bergh, 1864), on the Official List of Family-Group Names in Zoology;

(2) to place the generic name *Cratena* Bergh, 1864 (gender : feminine), type-species by original designation *Doris peregrina* Gmelin, 1791, on the Official List of Generic Names in Zoology;

(3) to place the specific name *peregrina* Gmelin, 1791, as published in the binomen *Doris peregrina* (type-species of *Cratena* Bergh, 1864), on the Official List of Specific Names in Zoology;

(4) to place the generic name *Rizzolia* Trinchese, 1877 (a junior objective synonym of *Cratena* Bergh, 1864), on the Official Index of Rejected and Invalid Generic Names in Zoology.

ON THE APPEAL TO SUPPRESS *LEPTOCORIXA* IN FAVOUR OF *LEPTOCORISA* Z.N.(S.) 1589

(see volume 20, pages 435–437)

By Carl W. Schaefer (*Department of Biology, Brooklyn College, Brooklyn* 10, *New York*)

I agree completely with China and Ahmad's Appeal to suppress the generic name *Leptocorixa* Berthold, 1827, in favor of *Leptocorisa* Latreille, 1829. In addition, I should like to make a few comments in support of their request that the family-group name LEPTOCORIXINI (and its variants) be suppressed in favor of LEPTOCORISINI:

(1) LEPTOCORISINI Stål, 1872 has priority over LEPTOCORIXINI Bergroth, 1913, having been used first by Stål in 1872 (*Öfv. K. svensk. Vetensk.-Akad. Förhandl.* **29**(6) : 54):

(2) LEPTOCORISINI has achieved general acceptance over LEPTOCOROXINI and, by Article 40(a), is valid whether or not the Appeal to suppress LEPTOCORIXA is granted;

(3) The reference in Paragraphs 7(4) and 7(5) of China and Ahmad's Appeal to " Stål 1877 " should certainly read " Stål 1872, " since the latter is the correct reference and is, indeed, the one cited in the Bibliography.

COMMENTS ON THE PROPOSED VALIDATION OF *CARDINALIS* BONAPARTE, 1838 (AVES). Z.N.(S.) 1608

(see this volume, pages 133–136)

By Walter Bock (*University of Illinois, Urbana, Illinois, U.S.A.*)

I would like to comment upon several points raised by Mayr, Marshall and Selander in the proposal before the I.C.Z.N. on the generic name *Cardinalis* Bonaparte, 1838).

On page 134, paragraph 9, and page 136, appendix, Mayr, Marshall and Selander point out that the genera *Pyrrhuloxia* and *Cardinalis* (= *Richmondena*) are separated mainly upon the basis of bill shape and that the separation of these genera is based upon very doubtful grounds. I have recently published a paper on the problem of " Bill shape as a generic character in the cardinals " (*The Wilson Bulletin* 76(1) : 50–61); this study was done upon the suggestion of Dr. Mayr who was anxious to have this problem analyzed in connection with his proposal to the I.C.Z.N. My conclusions are that differences in bill shape between *Pyrrhuloxia* and *Cardinalis* are well within the range of variation in bill shape observed in closely related genera and that these forms are with little doubt congeneric.

Because these birds are congeneric and because this is the type-genus of the subfamily, I would strongly support the recommendation of Mayr, Marshall and Selander as given in their paragraph 15, pp. 135–136.

By Jean Dorst (*Museum National d'Histoire Naturelle, Paris, France*)

J'ai lu avec beaucoup d'intérêt la proposition faite par Ernst Mayr et J. T. Marshall sur la validation du nom générique de *Cardinalis*.

Je tiens à vous dire qu'après avoir pris connaissance de cette note j'en partiage dans l'ensemble les termes et je serais très heureux de voir cette proposition acceptée par la Commission.

By B. P. Hall (*British Museum (Natural History), London*)

I would like to support Prof. Mayr's application to suppress *Cardinalis* Jarocki, 1821, and place *Cardinalis* Bonaparte, 1838, on the Official List. I regard this as an exceptional instance, arising from the wide use of the vernacular " Cardinal " and the present instability in the generic names, which justifies using a little common sense to produce stability, rather than too rigid an application of the Rules.

OPINION 715

XENOPHORIDAE PHILIPPI, 1853 (GASTROPODA): ADDED TO THE OFFICIAL LIST OF FAMILY-GROUP NAMES IN ZOOLOGY

RULING.—(1) It is hereby Ruled that the neotype designation by K. V. W. Palmer, 1963, for *Turbo trochiformis* Born, 1778, is not acceptable under Article 75 of the International Code of Zoological Nomenclature.

(2) The family-group name XENOPHORIDAE Philippi, 1853 (type-genus *Xenophora* Fischer von Waldheim, 1807) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 381.

(3) The generic name *Xenophora* Fischer von Waldheim, 1807 (gender: feminine), type-species, by designation by Harris, 1897, *Xenophora laevigata* Fischer von Waldheim, 1807, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 1651.

(4) The specific name *conchyliophorus* Born, 1780, as published in the binomen *Trochus conchyliophorus*, is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2045.

HISTORY OF THE CASE (Z.N.(S.) 1483)

The present case was first submitted to the Office of the Commission by Dr. K. V. W. Palmer in May 1961, as a request for the preservation under the plenary powers of the family-group name XENOPHORIDAE. Dr. Palmer's application was sent to the printer on 22nd August 1961 and was published on 23 March 1962 in *Bull. zool. Nomencl.* **19** : 115–116. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (Constitution Art. 12b; *Bull. zool. Nomencl.* **21** : 184) and to two malacological serials. In two further papers (*Bull. zool. Nomencl.* **20** : 1–9, 10–11) Dr. Palmer put forward arguments concerning the oldest available name for the type-species of *Xenophora*. The further history of the case is set out in the following Report, circulated to Commissioners with Voting Paper (64)1.

Summary of issues on Voting Paper 64 (1)

" (1) Dr. Katherine Palmer's proposal (*Bull. zool. Nomencl.* **19** : 115–116) to place XENOPHORIDAE on the Official List of Family-Group Names in Zoology. There is no need to use the plenary powers, as requested in her application, since XENOPHORIDAE was used as a family-group name by Philippi, 1853, and therefore has priority over ONUSTIDAE H. & A. Adams, 1854, whilst PHORIDAE Gray, 1840, is a junior homonym of PHORIDAE Curtis, 1833 in Insecta, Diptera, as shown by Donald R. Moore (*Bull. zool. Nomencl.* **20** : 15).

" (2) Dr. Palmer's proposal to place *Xenophora* Fischer von Waldheim, 1807, (type-species by designation by Harris, 1897, *Xenophora laevigata* Fischer von Waldheim, 1807) on the Official List of Generic Names in Zoology is unopposed.

" (3) Her proposal to place the specific name *Turbo trochiformis* Born, 1778 (as interpreted by a neotype designation—see *Bull. zool. Nomecl.* **20** : 1–11, Plate 2) on the Official List of Specific Names in Zoology as the oldest available name for *laevigata* is contested by:

(a) Robert Robertson (*Bull. zool. Nomencl.* **19** : 231; **20** : 11–14, 404) who argues that *Turbo trochiformis* Born, 1778, is a *Calyptraea* and not a *Xenophora*, and who proposes that *trochiformis* be rejected as a nomen dubium, and that *Trochus conchyliophorus* Born, 1780, be placed on the Official List as the oldest name for the type-species of *Xenophora*.

(b) R. Tucker Abbott (*Bull. zool. Nomencl.* **20** : 15) and Dr. Myra Keen (in litt.) who agree with Dr. Robertson.

" In the accompanying Voting Paper, Dr. Palmer's third proposal has been separated from the others, since it is only this one which has been challenged. If Commissioners agree that Dr. Palmer's neotype designation for *Turbo trochiformis* Born is valid under the Code, then they should vote to place that name on the Official List of Specific Names. Commissioners who agree with Dr. Robertson in his statement that this neotype designation is invalid should vote to place the name *Trochus conchyliophorus* Born on the Official List of Specific Names as the oldest name which unequivocally applies to the type-species of *Xenophora*. "

DECISION OF THE COMMISSION

On 27 April 1964 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (64)1, in Part 1 either for or against the proposal to place *Xenophora* and XENOPHORIDAE on the appropriate Official Lists (as set out in *Bull. zool. Nomencl.* **19** : 116); and in Part 2 for the placing of either *Trochus conchyliophorus* Born, 1780 or *Turbo trochiformis* Born, 1778 (as defined by the neotype designated by Palmer in *Bull. zool. Nomencl.* **20** : 11–12) on the Official List of Specific Names. At the close of the prescribed voting period on 27 July 1964 the state of the voting was as follows:

Part 1. Affirmative votes—twenty-six (26), received in the following order: China, Hering, Holthius, Lemche, Mayr, Vokes, Simpson, Stoll, Uchida, Boschma, Tortonese, Riley, Miller, do Amaral, Obruchev, Sabrosky, Evans, Bonnet, Kraus, Jaczewski, Alvarado, Forest, Mertens, Binder, Brinck, Ride.

Negative votes—one (1): Borchsenius.

Part 2. For the addition to the Official List of *Trochus conchyliophorus* Born—twenty-two (22): China, Hering, Lemche, Mayr, Vokes, Simpson, Stoll, Uchida, Boschma, Tortonese, Miller, do Amaral, Obruchev, Evans, Bonnet, Kraus, Jaczewski, Alvarado, Forest, Mertens, Binder, Brinck.

For the addition to the Official List of *Turbo trochiformis* Born—three (3): Holthuis, Riley, Ride.

On Leave of Absence—one (1): Munroe.

Voting Papers not returned—one (1): Hubbs.

Mr. Sabrosky did not cast a vote in Part 2 of the Voting Paper.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official Lists by the Ruling given in the present Opinion:

conchyliophorus, *Trochus*, Born, 1780, *Testacea Musei Caesarei Vindobonensis:* 333

Xenophora Fischer von Waldheim, 1807, *Museum-Demidoff* **3** : 213

XENOPHORIDAE Philippi, 1853, *Handb. Conchyliol. Malacozool.* **1853** : 185

The following is the original reference to the designation of a type-species for a genus concerned in the present Ruling;

For *Xenophora* Fischer von Waldheim, 1807 : Harris, 1897, *Cat. Tertiary Moll. B.M.* (*N.H.*), Pt. 1, *The Australasian Tertiary Mollusca:* 253

CERTIFICATE

I certify that the votes cast on Voting Paper (64)1 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 715.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
3 *September* 1964

COMMENT ON THE PROPOSED RULING ON THE TYPE-SPECIES OF *STENOSCISMA* CONRAD, 1839. Z.N.(S.) 1539

(see this volume, pages 130–132)

By Richard E. Grant (*U.S. Geological Survey, Washington, D.C., U.S.A.*)

Dr. Schmidt's historical survey of the usage of the names *Stenoscisma* Conrad and *Camerophoria* King is entirely correct, to the best of my knowledge (I have just completed a study of the superfamily containing *Stenoscisma*, for the Treatise on Invertebrate Paleontology), I see no objection to her proposal, except that as it now stands the name *Stenoscisma* is an objective senior synonym of *Camerophoria*, and is recognized as such by all present workers. I do not see the necessity of action by the Commission in this matter, inasmuch as the synonymity is objective and beyond dispute under the present Rules of Zoological Nomenclature. However, ruling to place the name *Stenoscisma* on the Official List of names would remove whatever doubts may remain in this case, and would be in no way objectionable.

The request (para. 15, part 3) to place the family-group names based on Stenoscismatinae Oehlert on the Official List deals with a case that is less clear cut. However, I believe that the action recommended is desirable. The present Rule (Art. 40) calls for retention of family-group names that are based on junior synonyms, *unless* the change to the name based on the senior synonym was effected prior to 1961, and has won general acceptance. The Russian treatise on brachiopods in the Osnovi Paleontologii (1961) retains the family-group name based on Camerophoriinae Waagen 1883. It might be argued that use of the prior name in such an important work at this late date indicates lack of general acceptance of names based on Stenoscismatinae Oehlert. Most recent authors (including some text books and the Zoological Record) have adopted names based on Stenoscismatinae, and in the interest of stability a decision to place that family-group name on the Official List would clarify and stabilize the situation. Therefore I would like to offer my concurrence with Dr. Schmidt's application to the Commission.

OPINION 716

PHASMATIDAE GRAY, 1835 (INSECTA, PHASMATODEA): ADDED TO THE OFFICIAL LIST OF FAMILY-GROUP NAMES

RULING.—(1) The family-group name PHASMATIDAE (correction of PHASMIDAE) Gray, 1835 (type-genus *Phasma* Lichtenstein, 1796) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 382.

(2) The family-group name PHASMIDAE Gray, 1835 (type-genus *Phasma* Lichtenstein, 1796) (an incorrect original spelling for PHASMATIDAE) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Number 411.

HISTORY OF THE CASE (Z.N.(S.) 1596)

An application to place the family-group name PHASMATIDAE on the Official List was first received from Dr. K. H. L. Key in September 1956. The application embodying this recommendation was published on 8 April 1960 in *Bull. zool. Nomencl.* **17** : 235–240. The majority of Dr. Key's proposals in this application were approved by the Commission in January 1961, and embodied in the Ruling of Opinion 641. The history of the dispute on the use of PHASMIDAE or PHASMATIDAE is given in that Opinion (*Bull. zool. Nomencl.* **19** : 274–279). Public Notice of the possible use of the plenary powers to preserve the name PHASMIDAE was given in a Secretary's note (*Bull. zool. Nomencl.* **19** : 294, 257) and to the other prescribed serial publications (See Constitution Article 12b; *Bull. zool. Nomencl.* **21** : 184). A letter of support for the use of PHASMATIDAE by Dr. D. K. McE. Kevan was published in *Bull. Zool. Nomencl.* **20** : 256. The following summary of issues was prepared by Dr. Key and was circulated to Commissioners with Voting Paper (64)2.

" (1) Phasmatidae is the form that is correct under the Code. The Commission has a general obligation to support the Code, and the onus therefore rests on the person invoking the plenary powers to demonstrate beyond doubt that normal operation of the Code will lead to a significant degree of instability or confusion.

" (2) Although ' Phasmatidae ' is a minority usage, it has been employed quite frequently since at least 1881, and is perhaps gaining ground. It is the form used in what is probably the most widely consulted single zoological text, the Zoological Record, and in Brues, Mellander & Carpenter's ' Classification of Insects ' (1954), among other works. The issue is therefore not whether ' Phasmidae ' should be ' replaced ' by some name newly resurrected from the past, but rather which of two long-current spellings should be accepted.

" (3) The long period over which both names have been in use, taken in conjunction with the rather slight difference in spelling, suggests that few zoologists who are accustomed to the spelling ' Phasmidae ' would fail to recognise this name in the form ' Phasmatidae '. The comparable words ' stoma, stomata ' and ' stigma, stigmata ' are quite familiar and the parallel should be obvious. The position would be different if the alternative names had no obvious connection with each other.

" (4) For these reasons, I hold that no adequate grounds exist for suspending the operation of the Code in this case. "

DECISION OF THE COMMISSION

On 27 April 1964 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (64)2 either for or against the validation under the plenary powers of the spelling PHASMIDAE for the family-group name based on *Phasma* Lichtenstein. At the close of the prescribed voting period on 27 July 1964 the state of the voting was as follows;

Affirmative votes—seven (7), received in the following order: Boschma, Tortonese, Riley, Bonnet, Borchsenius, Forest, Mayr.

Negative votes—twenty (20): China, Hering, Holthuis, Lemche, Vokes, Simpson, Stoll, Uchida, Miller, do Amaral, Obruchev, Sabrosky, Evans, Kraus, Jaczewski, Alvarado, Mertens, Binder, Brinck, Ride.

On Leave of Absence—one (1): Munroe.

Voting Papers not returned—one (1): Hubbs.

Original References

The following are the original references for names placed on the Official List and Index by the Ruling given in the present Opinion:

PHASMATIDAE Gray, 1835, *Syn. Phasm.:* 1–44

PHASMIDAE Gray, 1835, an incorrect original spelling for PHASMATIDAE q.v.

CERTIFICATE

I certify that the votes cast on Voting Paper (64)2 were cast as set out above, that the use of the plenary powers for the adoption of the proposal contained in that Voting Paper was refused, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 716.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
3 *September* 1964

SIX MISIDENTIFIED TYPE-SPECIES IN THE SUPERFAMILY MURICACEA (GASTROPODA)

Z.N.(S.) 1623

By A. Myra Keen (*Stanford University, California*)

In revising the superfamily Muricacea for the " Treatise on Invertebrate Paleontology ", I have encountered six cases in which the type-species of generic taxa have been misidentified by authors. Under Article 70(a) of the Code, I must therefore bring these to the attention of the International Commission on Zoological Nomenclature for review and decision.

1. *Mancinella* Link, 1807

As proposed by Link, the genus *Mancinella* comprised several nominal species, among which was " *Murex mancinella* L. G. 3538. M.–C. 3. t. 101, F. 967–968," automatically the type-species by absolute tautonymy. The *Murex mancinella* Linnaeus, 1758, may not be the form figured in the reference cited by Link (Martini and Chemnitz, *Conchylien-Cabinet* **3** : pl. 101, figs. 967–968, 1777). Realizing this, Iredale (1915, p. 472), cited the type-species as *M. mancinella* of authors, not of Linnaeus. Dodge (1957, pp. 134–136), in a review of the Linnean species, has shown that the *M. mancinella* of Linnaeus must either be regarded as a *species dubium* or, more plausibly, as the later nominal species *Drupa cornus* Röding, 1798. These two forms are distinct generically and may even represent different subfamilies. To adopt the latter interpretation of the species would cause much confusion, for the transfer of the name *Mancinella* to the new setting would cause it to fall as a subjective synonym of *Drupa* Röding, 1798 and would leave nameless the group in Thaididae now known as *Mancinella*, one that is widespread in the Pacific.

The International Commission on Zoological Nomenclature is therefore asked to declare *Murex mancinella* Linnaeus, 1758 a *species dubium* and to designate as type of the genus *Mancinella* the species known as *Murex mancinella* by authors, the first available specific name of which is *Purpura gemmulata* Lamarck, 1816. This usage has already been adopted by some Japanese authors (for example, Arakawa, 1962, on p. 74 of a paper entitled " A study on the radulae of the Japanese Muricidae—the genera *Purpura*, *Thais*, and *Mancinella*," *Japanese Jour. Malac.* **22** (1) : 70–78, 2 pls.).

II. *Chicoreus* Montfort, 1810

The name *Chicoreus* was proposed by Denys de Montfort (*Conchyliologie Systématique* **2** : 611) as follows:

> " *Chicoreus* m.
> Espèce servant de type au genre,
> *C. ramosus*. *Murex ramosus* Linn. et Gmel. sp. 13. "

The type has been taken by most authors as *M. ramosus* Linnaeus, 1758, a large and extremely frondose form from the Indo-Pacific region. However, a different interpretation was suggested by Clench and Farfante (1945, *Johnsonia* **1** (17) : 28), who argue that the figure accompanying the proposal—a plate on the page opposite to the text—is of a Caribbean species, and they cite the type as follows:

" *Chicoreus ramosus* Denys de Montfort (=*Murex brevifrons* Lamarck [1822]) (monotypic); *non Murex ramosus* Linné." In another paragraph on the same page they cite Montfort's species as " *Murex ramosus* Montfort, 1810 . . . non . . . Linné."

No change of concept is involved here, for both *M. ramosus* Linnaeus and *M. brevifrons* Lamarck are accepted by authors as congeneric. The preponderance of usage seems to favour the interpretation that Montfort correctly identified the Linnean species although he cited as localities only America and the coast of Africa. To clarify the situation, however, the Commission is hereby asked to rule that the type of *Chicoreus* is *Murex ramosus* Linnaeus.

Question has been raised as to the possibility that *Triplex* Perry, 1810 (*Arcana*: pl. 23) might have priority over *Chicoreus* Montfort, 1810. Iredale (1915 : 457) has shown that Montfort's work was reviewed in a journal published May 28, 1810. Perry's work is known to have appeared in June, 1810. Thus *Chicoreus* has clear priority. The type-species of *Triplex* is *T. foliatus*, better known under the latter name *Murex palmarosae* Lamarck, 1822. Preservation of the latter and suppression of *T. foliatus* as a *nomen oblitum* would be desirable.

III. *Polyplex* Perry, 1810

The generic name *Polyplex*, like the *Triplex* discussed in the paragraph above, was proposed by Perry in a work entitled the " Arcana," published in parts in 1810, a summary of which has been published by Mathews and Iredale (*Victorian Naturalist* **29** : 9–13, 1912). Few copies of the " Arcana " survive. There is one in the library of the Academy of Natural Sciences of Philadelphia, and to the staff of that institution (especially to Dr. Robert Robertson) I am indebted for the following information: The name *Polyplex* first appears in the plate explanation to the 23rd plate thus—" . . . the *Monoplex* has one fold on its body; the *Biplex* has two folds; the *Hexaplex* six folds, and so on with the *Polyplex*, in which the folds are very numerous, but the number not defined, and indeed of these latter but few have been discovered, and those only in the Southern Ocean and islands lately discovered by the investigation of Captain Cook and other navigators." This plate appeared in June 1810. No specific names were then associated with the generic name *Polyplex*. In September 1810, with the 35th plate, Perry mentioned the name again, still without a species but with the statement that a History of Shells would shortly be published—evidently his " Conchology," which appeared in 1811. There, on plate 9, five species of *Polyplex* were named and figured: *P. purpurascens*, *P. rugosus*, *P. crenatus*, *P. gracilis*, and *P. bulbosa* [sic]. These figures, like some others of Perry's, were so poor as to have been regarded by many authors as unrecognizable.

Baily in 1960 (*Nautilus* **74**(1) : 28–31), attempting to interpret *Polyplex*, has discussed three of the species. He argued that because Perry said his first species, *P. purpurascens*, was a form from which the Tyrians obtained their famous purple dye, this would fix the name as a synonym of *Murex trunculus*

Linnaeus, 1758—a conclusion that may be questioned, for several different muricids were used for making dye. Baily, however, felt that least disruption of established nomenclature would result from his designation of this species as type of *Polyplex*. However, *Truncularopsis* Cossmann, 1921 (*nom. nov. pro Truncularia* Monterosato, 1917, *non* Wiegmann, 1832) is thereby displaced as an objective synonym. The second previously identified species assigned to *Polyplex* would also cause dislocation of one or more well-known names, for *P. gracilis*, although not now in active use, is conceded to represent *Boreotrophon* Fischer, 1884. The latter being regarded as a subgenus of *Trophonopsis* Bucquoy, Dautzenberg and Dollfus, 1882, by some authors, the use of *Polyplex* for the group of *P. gracilis* would endanger one or both of these commonly-used generic names. The third form for which identification has been suggested, *Polyplex rugosa*, seems to be the *Buccinum lamellosum* of Gmelin, 1791, a species now allocated to *Nucella* Röding, 1798. Baily, indulging in a certain amount of casuistry, rejected *Nucella* from Muricidae and argued that *Polytropa* Swainson, 1840, was the first acceptable synonym for the *Nucella* of authors and that it would be jeopardized by designation of *P. rugosus* as type of *Polyplex*. Rehder (1962, *Nautilus* **75** : 111) has come to a different and more plausible interpretation of *Nucella*, which would make *Polyplex* posterior to at least one established generic name. There is another of the five species figured by Perry that seems to me to be identifiable, although I do not find that anyone has made this suggestion: The figure of *P. bulbosa*, as well as the description, can be matched very satisfactorily by specimens of *Trophon geversianus* (Pallas, 1774), the type of the genus *Trophon*. This generic name, proposed by Montfort in 1810, antedates *Polyplex* by some days or weeks, as shown under the discussion of *Chicoreus* above. Therefore, if this identification is acceptable, *P. bulbosa* could have been designated type of *Polyplex* without interfering with any other generic name. The type locality is stated to be " Indian Seas "—vague, but not more so that others of the time. Actually, the species comes from southern South America.

The selection of *Polyplex purpurascens* as type-species seems to me to be open to challenge. The genus was originally proposed without named species. Under the Code, the first species that were assigned to the taxon with adequate indication would be available for designation. The original description made two strictures—that the shells have many varices and that they come from the Southern Ocean and islands discovered by Captain Cook. *P. purpurascens* has several varices (though they would hardly be properly called " very numerous ") but it came, according to Perry's own statement in the 1811 work, from the Mediterranean. On the other hand, the *P. bulbosa*, if interpreted as *Trophon geversianus*, does fulfill the requirement of coming from the Southern Ocean and having " very numerous " axial ribs or varices.

As it is obvious that the generic name *Polyplex* Perry, 1810, can serve no useful purpose and that its recognition would tend toward instability of nomenclature, I therefore ask the International Commission on Zoological Nomenclature:

to set aside the designation of type-species by Baily (1960) as inapplicable and to redesignate the type as *Polyplex bulbosa*, a subjective synonym of

Buccinum geversianum Pallas, 1774, type-species of the genus *Trophon* Montfort by original designation under the name combination *Murex magellanicus* Gmelin, 1791.

IV. *Thalessa* H. and A. Adams, 1853

In the *Genera of Recent Mollusca* (vol. 1 : 127) the brothers Henry and Arthur Adams proposed *Thalessa* with a list of 16 species, none of which was cited as type. The first type designation seems to be by F. C. Baker, 1895 (*Bull. Chicago Acad. Sci.* **2** (2) : 183), who selected " *Purpura hippocastaneum*, Linné," the correct rendering of which is *Murex hippocastanum* Linnaeus, 1758. Dodge (1957 : 137–139) has shown, from a study of the Linnean manuscripts and collection, that the Linnean species has been misidentified by authors: "However, Linnaeus' type, a specimen of the shell later called *Pyrula galeodes* by Lamarck (1822), is found in the Linnean collection in London inscribed with the serial number of *M. hippocastanum* in Linnaeus' hand." Modern classification would place Lamarck's species in the family Melongenidae, genus *Volema* Röding, 1798. The earliest available synonym for the *M. hippocastanum* of authors seems to be *Purpura aculeata* Deshayes, 1844. Dautzenberg in 1929, becoming convinced that the Linnean species had been misidentified and being unaware of a synonym, proposed a new name, *Purpura* (*Thalessa*) *pseudocastanum*.

If a strict application of the Rules is deemed advisable by the Commission, which would then make *Thalessa* a subjective synonym of *Volema* Röding, the generic name *Menathais* Iredale, 1937 (*Australian Zoologist* **8** : 256; type-species, by original designation, *Purpura pica* Blainville, 1832) is available to take the place of *Thalessa* Auctt.

However, in the interests of stability, the International Commission on Zoological Nomenclature is asked to rule that the type of *Thalessa* H. and A. Adams, 1853, should be fixed as the *M. hippocastanum* of authors under the specific name *Purpura aculeata* Deshayes, 1844.

V. *Kalydon* Hutton, 1884 (?1883)

Kalydon was briefly described by Hutton (*Trans. New Zealand Inst.* **16** : 220), with three nominal species, none of which was designated as type: *Fusus duodecimus* Gray, 1843, and *Trophon inferus* and *T. plebejus* Hutton, 1873. In the *Zoological Record* for 1884 the editor, Edouard von Martens, states (Mollusca : 38) " Distinct from *Trophon* by the absence of varices; from *Urosalpinx* by the ovate operculum with subapical nucleus. Type, *Trophon duodecimus* (Gray. *Fusus*) Hutton, Tr. Phil. Inst. Canterbury (N.Z.), 1883, p. 216, and Tr. N.Z. Inst., 16, p. 220, where also *Fusus plebejus* and *inferus* (Hutton) are referred to this genus."

I have been unable to locate the reference attributed to Hutton, 1883, but in any case, the designation by Von Martens would fix the type of *Kalydon* as *Fusus duodecimus*, a species described by Gray in 1843 in the appendix to Dieffenbach's " Travels in New Zealand." According to Suter (*Manual of the New Zealand Mollusca*, 1913 : 412), the type of Gray's species is lost, and the species is indeterminate from the description. Hutton's concept was based rather upon a form of his own that he assumed to be a synonym of Gray's species—*Fusus* *corticatus* Hutton, 1873, which in modern usage falls in a related but distinct genus, *Axymene* Finlay, 1927.

Iredale in 1915 rejected the name *Kalydon* as a homonym of *Calydon* Thomson, 1864, correctly under the Rules in force at that time. His replacement name *Xymene* (Iredale, 1915 : 471; type-species by original designation, *Trophon plebejus* Hutton, 1873), has consistently been used since then by Australasian workers.

The Commission is therefore asked to suppress *Kalydon* on two grounds: that it was once correctly rejected as a homonym—although under the present Code it would not be—and that the type species is unrecognizable.

VI. *Tolema* Iredale, 1929

The original proposal of this genus was as follows: (*Records of the Australian Museum* **17** (4) : 186, Sept. 1929) : " TOLEMA gen. nov. (Plate 41, figs. 3, 8). This genus is introduced for *Purpura sertata* Hedley (Austr. Mus. Mem. *iv*, 1902 [1903], p. 382, figs. 95–96), which was afterwards regarded by its author as synonymous with *Coralliophila lischkeana* Dunker, a Japanese species. The adult shell has not yet been figured, as Hedley's species was based on an immature shell . . ."

Laseron in 1955 in a paper entitled, " The genus *Tolema* and its allies " (*Proc. R. zool. Soc. New South Wales*, **1953–54** : 70–74) was able to demonstrate that the adult of *P. sertata* is not the form figured by Iredale. Growth series being available for both, it is clear that two genera are involved. Laseron's decision was that because the name *Tolema* had become well embedded in the literature under the concept of the adult form figured by Iredale—which has a row of overlapping spines at the periphery—this usage should be retained. He proposed a new generic name, *Liniaxis*, for a group comprising Hedley's original species and some others, naming as type-species *L. elongata* Laseron, which he described as new. The morphologic group *Liniaxis* has a smooth periphery as well as several other differentiating characters. Under Article 70 of the Code, Laseron's solution is untenable, for the Code leaves no such option to the individual systematist.

Because Laseron's action was in harmony with current usage by Australian and Japanese workers, it would, at first sight, seem worthy of formal support. However, there are two generally overlooked names that are prior to *Tolema*, as figured by Wenz in the *Handbuch der Paläozoologie* (Bd. 6, Heft 5, 1939 : 1131–1132, figs. 3211, 3218). Morphologically, either of these two could include the type of *Tolema* Auctt. Those are: *Mipus* Gregorio 1885 (*Bull. Soc. malac. Italiana* **11** : 28; type-species, by original designation, *Trophon gyratus* Hinds, 1844, from Macassar Straits, East Indies) and *Babelomurex* Coen, 1922 (*Atti Soc. Italiana di Sci. nat. . . .* Milan **61** : 68), type-species by original designation, *Fusus babelis* Réquien, 1848, from the Mediterranean. *Babelomurex* has recently been utilized in this sense by Emerson and D'Attilio (*American Mus. Novitates*, no. 2149, July 1963 : 2–4), who concur that *Tolema* is unavailable unless given special protection by the International Commission.

One cannot doubt that for a time, at least, confusion would result from the selection of the true *Purpura sertata* Hedley as type of *Tolema*, but this might be the best way to preserve the name, for possibly more work will demonstrate that both *Liniaxis* Laseron and the reinterpreted *Tolema* are tenable, whereas recognition of the *Tolema* of authors would require suppression of two prior generic taxa.

It is here suggested, therefore, that in the long-term interests of systematics, the Provision in Article 70(a)(iii) should be adopted and the original designation of *Purpura sertata* Hedley as the type-species of *Tolema* Iredale, 1929, be reinforced by Commission action.

In summary, the International Commission on Zoological Nomenclature is asked, in the interests of stability:

(1) to use its plenary powers:

(a) to suppress the generic name *Kalydon* Hutton, 1884, for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(b) to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy the following specific names:

- (i) *mancinella* Linnaeus, 1758, as published in the binomen *Murex mancinella;*
- (ii) *foliatus* Perry, 1810, as published in the binomen *Triplex foliatus*;
- (iii) *duodecimus* Gray, 1843, as published in the binomen *Fusus duodecimus;*
- (iv) *hippocastanum* Linnaeus, 1758, as published in the binomen *Murex hippocastanum;*

(c) to set aside all designations of type-species for the genus *Mancinella* Link, 1807, and having done so to designate *Purpura gemmulata* Lamarck, 1816 to be the type-species of that genus;

(d) to set aside all designations of type-species for the genus *Polyplex* Perry, 1810, and having done so to designate *Polyplex bulbosa* Perry, 1810, to be the type-species of that genus;

(e) to set aside all designations of type-species for the genus *Thalessa* H. & A. Adams, 1853, and having done so to designate *Purpura aculeata* Deshayes, 1844, to be the type-species of that genus;

(2) to place the following generic names on the Official List of Generic Names in Zoology:

(a) *Mancinella* Link, 1807 (*Beschr. nat. Samml. Univ. Rostock:* 115) (gender: feminine) type-species, by designation under the plenary powers in (1)(c) above: *Purpura gemmulata* Lamarck, 1816;

(b) *Chicoreus* Montfort, 1810 (*Conch. syst. Class. méth. Coquilles* **2** : 610) (gender : masculine), type-species, by original designation *Murex ramosus* Linnaeus, 1758;

(c) *Trunculariopsis* Cossmann, 1921 (*Rév. crit. Paléozool.* **25** : 79) (gender : feminine) type-species, by monotypy, *Murex trunculus* Linnaeus, 1758;

(d) *Thalessa* H. & A. Adams, 1853 (*Gen. rec. Moll.* **1** : 127) (gender : feminine), type-species, by designation under the plenary powers in (1)(e) above, *Purpura aculeata* Deshayes, 1844;

(e) *Xymene* Iredale, 1915 (*Trans. New Zealand Inst.* **47** : 471) (gender : masculine), type-species, by original designation, *Trophon plebejus* Hutton, 1873;

(f) *Tolema* Iredale, 1929 (*Rec. Austr. Mus.* **17** : 186) (gender : feminine), type-species by original designation, *Purpura sertata* Hedley, [1903];

(g) *Trophon* Montfort, 1810 (*Conch. syst. Class. méth. Coquilles* **2** : 482) (gender : masculine) type-species, by original designation, *Murex magellanicus* Gmelin, 1791;

(3) to place the following specific names on the Official List of Specific Names in Zoology:

(a) *gemmulata* Lamarck, 1816, as published in the binomen *Purpura gemmulata* (type-species of *Mancinella* Link, 1807);

(b) *ramosus* Linnaeus, 1758, as published in the binomen *Murex ramosus* (type-species of *Chicoreus* Montfort, 1810);

(c) *trunculus* Linnaeus, 1758, as published in the binomen *Murex trunculus* (type-species of *Truncularıopsis* Cossman, 1921);

(d) *aculeata* Deshayes, 1844, as published in the binomen *Purpura aculeata* (type-species of *Thalessa* H. & A. Adams, 1853);

(e) *plebejus* Hutton, 1873, as published in the binomen *Trophon plebejus* (type-species of *Xymene* Iredale, 1915);

(f) *sertata* Hedley, [1903], as published in the binomen *Purpura sertata* (type-species of *Tolema* Iredale, 1929);

(g) *geversianum* Pallas, 1774, as published in the binomen *Buccinum geversianum*;

(h) *palmarosae* Lamarck, 1822, as published in the binomen *Murex palmarosae*

(4) to place the generic name *Kalydon* Hutton, 1884 (as suppressed under the plenary powers in (1)(a) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

(5) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology, all suppressed under the plenary powers in (1)(c) above:

(a) *mancinella* Linnaeus, 1758, as published in the binomen *Murex mancinella;*

(b) *foliatus* Perry, 1810, as published in the binomen *Triplex foliatus;*

(c) *duodecimus* Gray, 1843, as published in the binomen *Fusus duodecimus;*

(d) *hippocastanum* Linnaeus, 1758, as published in the binomen *Murex hippocastanum.*

COTINIS BURMEISTER, 1842 (INSECTA, COLEOPTERA): PROPOSED CONSERVATION UNDER THE PLENARY POWERS. Z.N.(S.) 1641

By Michael A. Goodrich (*The Pennsylvania State University,
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In the course of completing a revision of the genus *Cotinis* Burm., the following facts have come to light.

In 1819, William Sharp MacLeay described the genus *Gymnetis*, based on a single species, *Scarabaeus nitidus* L., 1764. In the period immediately following, between 1819 and 1842, a considerable number of new species were added to *Gymnetis* by Gory & Percheron (1833) and others. In 1842, in his Handbuch der Entomologie, Hermann Burmeister partitioned *Gymnetis*, describing a number of new genera, including among these the genus *Cotinis* which he described as those Gymnetini in which both males and females possess a more or less well developed clypeal horn, thus including within his new genus the species *Gymnetis nitidus* L. At this time, Burmeister himself pointed out in a footnote that he had included the type of MacLeay's *Gymnetis* in his new genus, justifying his action as follows:

" Ich wurde fur diese Gruppe den Gattungsnamen *Gymnetis* beibehalten haben, da MacLeay de *Cetonia* nitida Fab. als Typus von Gymnetis auffürt, wenn er nicht in der Gattungsbeschreibung sagte: Sternum tuberculiform, was von den gehörnten Arten nicht gilt, überdem die ungehörnten die zahlreicheren sind."

Burmeister apparently felt that his new arrangement was superior since MacLeay's description did not agree well with *Scarabaeus nitidus* L.

For the next 107 years, Burmeister's arrangement of these genera was accepted without comment. The generic name *Gymnetis* MacLeay was applied to the species lacking clypeal horns and the name *Cotinis* Burmeister was applied to those possessing clypeal horns in both sexes, as defined by Burmeister. By 1930 a total of 73 taxa had been described and placed in *Cotinis* according to Blackwelder (1939, 1957) and Leng (1920, 1927, 1933). The workers making these descriptions, including Bates (1889) and Casey (1915), who published quite extensive works, were either unaware of or ignored the absolute synonymy of *Cotinis* and *Gymnetis*. Casey (1915) even goes so far as to designate *Gymnetis mutabilis* G. & P., 1833 (referred to *Cotinis* by Burmeister with his generic description) as type-species of *Cotinis*, at the same time designating *Scarabaeus lanius* L. as type-species of *Gymnetis*. In his description of the genus *Cotinis*, Burmeister had treated *C. mutabilis* first, labelling it No. 1. By 1963, literally hundreds of papers referring to species in the genus *Cotinis* were scattered throughout the literature including, for example, 59 papers indexed in the Index of Economic Entomology for the years 1949–1959.

In 1937, Schürhoff partitioned *Gymnetis* still further, describing five new genera; *Paragymnetis*, *Maculinetis*, *Cineretis*, *Jansonia*, and *Astrocara*.

In 1949, discovering the absolute synonymy of *Cotinis* and *Gymnetis*, Antonio Martinez published a short paper announcing this fact (among other things) and proposing that the name *Gymnetis* now be applied to all species previously called *Cotinis*, based on a strict interpretation of Article 68c (type by monotypy), with *Scarabaeus nitidus* L. as type-species. The subgenus *Gymnetina* Casey 1915, described for a single species originally included in *Gymnetis* (of Burmeister) and subsequently treated as a synonym of *Gymnetis*, was elevated by Martinez as a distinct genus to include some species previously considered to be *Gymnetis*. *Gymnetina* is left as a monotypic subgenus, as defined by Casey, and the new subgeneric name *Gymnetoides* was proposed for the species previously placed in *Paragymnetis* by Schürhoff (1937) (described by Martinez as a nomen nudum for lack of a type-species), the type-species being designated as *Scarabaeus lanius* L., 1766. In addition the new name *Gymnetosoma* was proposed for the species left in *Gymnetis* by Schürhoff, with *Cetonia flaveola* Fabr., 1811 designated as type-species; and *Hologymnetis* as a new name for *Cineretis* Schürhoff, 1937 (nomen nudum for lack of type-species). That Martinez' rearrangement of generic names was either unknown to other entomologists or ignored is attested to by the previously cited information regarding the number of publications in economic entomology on *Cotinis* spp. between 1949 and 1959, while during the same period no publications were listed in the same index under the generic name *Gymnetis*. General taxonomic references, for use in identification of Coleoptera, such as Arnett (1960) describe *Cotinis* and *Gymnetis* according to Burmeister, Bates, Casey, etc., and have ignored Martinez' 1949 paper.

As has been observed, the genus *Cotinis* is a common and well known one, although unrevised until now, and several species are of great economic importance. For these reasons, and in view of the extensive literature that exists pertaining to *Cotinis* and *Gymnetis*, as well as the apparent lack of acceptance of Martinez' obscure work, it is the opinion of the author that the generic names *Cotinis* Burmeister, 1842, and *Gymnetis* MacLeay, 1819, should be conserved as defined by Burmeister (1842) through Article 79 of the International Code of Zoological Nomenclature, since a change at this time would certainly add confusion and make the use of the popular indexes and checklists much more difficult for non-specialists.

The following recommendations are therefore made, that the International Commission should:

(1) use its plenary powers to set aside all designations of type-species for the nominal genus *Gymnetis* MacLeay, 1819, and, having done so, designate *Scarabaeus lanius* Linnaeus, 1766, to be the type-species of that genus;

(2) place the following generic names on the Official List of Generic Names in Zoology:

(a) *Gymnetis* MacLeay, 1819 (gender: masculine), type-species, by designation under the plenary powers in (1) above, *Scarabaeus lanius* Linnaeus, 1766;

(b) *Cotinis* Burmeister, 1842 (gender: masculine), type-species, by designation by Casey, 1915, *Gymnetis mutabilis* Gory & Percheron 1833;

(3) place the following specific names on the Official List of Specific Names in Zoology:

(a) *lanius* Linnaeus, 1766, as published in the binomen *Scarabaeus lanius* (type-species of *Gymnetis* MacLeay, 1819);

(b) *mutabilis* Gory & Percheron, 1833, as published in the binomen *Gymnetis mutabilis* (type-species of *Cotinis* Burmeister, 1842).

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MYTILUS (NOW *ANODONTA*) *ANATINUS* LINNAEUS, 1758 (MOLLUSCA BIVALVIA): PROPOSED DESIGNATION OF A NEOTYPE IN CONFORMITY WITH THE INTENTIONS OF ITS ENTRY ON THE OFFICIAL LIST. Z.N.(S.) 1643

By Henning Lemche (*Universitetets zoologiske Museum, Copenhagen, Denmark*)

The intention of the present application is to preserve the specific name *Anodonta anatina* (Linnaeus, 1758) for use in its accustomed sense—and in accordance with the intentions of the Commission when, in 1955, that name was placed on the Official List of Specific Names in Zoology as name no. 426 (Opinion 336).

The name *Mytilus anatinus* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 706) was based on an unknown number of specimens and some references. Hanley (1855—*Ipsae Linn. Conch. Lond.* : 144) showed that the specimen in the Coll. Linnaeana in London (generally regarded as the type) belonged to the species now mostly called *complanata* Rossmaessler, 1835 (*Icon. Land.- & Süssw. Moll.* **1** : 112) and usually referred to the genus *Pseudanodonta*. Another specimen is in the Museum Ludovicae Ulricae Reg. now in Uppsala in Sweden, and was investigated by N. Odhner in 1927. He found this specimen, too, to belong to *complanata* and left a written record on it at the museum but never published his finding.

As a small " rivulet variety " of one of the two larger species of *Anodonta* s. str. exists, which may be close in appearance to specimens of *complanata*, confusions between these two species have been innumerable. In order to keep them apart in the following discussion without involving their specific names, I shall refer to them as " *Pseudanodonta* sp." and " *Anodonta* sp.", resp.

Hanley's statement that the London specimen was a " *Pseudanodonta* sp." has been completely ignored by specialists, and the name has been consistently applied to the " *Anodonta* sp."—except that a certain minority of authors have used the name *piscinalis* Nilsson, 1822 (*Hist. Moll. Suecicae* :116).

If matters had remained like that until the true position was cleared up before the Commission, I would not hesitate to ask for the complete suppression of the name *anatina* Linnaeus as a misapplied name, leaving the next available names to become valid for the two confused species: *piscinalis* and *complanata*.

Unfortunately, the Swedish malacologists knowing about these matters were not aware of what happened when Mr. E. A. Ellis presented his application for the protection of quite a number of specific names of land- and freshwater molluscs in Europe. Mr. Ellis included *Mytilus anatinus* Linnaeus, evidently intending to cover thereby the " *Anodonta* sp." instead of the correct one. Mr. Ellis' intention is demonstrated also by his accepting, as an editor of the *Journ. Conch.*, the use by A. G. Davis (**24** : 110—1954) of the name *minima* Millet for the *Pseudanodonta* sp., and *anatina* for the *Anodonta* sp. Again, in the same volume, (*J. Conch.* **24** : 401—1960) he is mentioned by F. R. Woodward as having confirmed Woodward's determination of a specimen as *Anodonta* *minima* (meaning the *Pseudanodonta* sp. which has for a long time been so named in England). The result was that the Commission accepted the name *anatina* as proposed by Mr. Ellis.

In 1956 Brander had already (*Ark. Zool.* (2) **9** : 175–182) given a thorough analysis of the whole case, with the correct interpretation as set out above, and also showing that *Anodonta minima* Millet, 1833 (*Mem. Soc. Agric. Sci. Arts d'Angers* **1831** [1833] : 241) is not conspecific with *complanata* Rossmaessler, as was until then assumed by almost all British authors. Millet's species is the very " rivulet variety " of *Anodonta* sp. so that his specific name must now be applied to the taxon previously known as *anatina*, and *anatina* must be applied to the taxon formerly known as *minima* if the extant types are accepted. The fate of Millet's name demonstrates once more the difficulties in keeping the two species separate, but no extra nomenclatorial trouble arises as *minima* Millet is junior not only to *anatina* Linnaeus but also to *piscinalis* Nilsson. Hence, efforts can be concentrated on finding the most suitable remedy for the situation of having a name on the Official List on erroneous premises and thus with false content.

(A) If the name *anatina* was not already on the Official List, it should no doubt be suppressed in order to clear the way for the oldest unambiguous names, i.e. *piscinalis* Nilsson for the *Anodonta* sp. and *complanata* Rossmaesler for the *Pseudanodonta* sp. This solution is still open for the Commission to choose—and seems to be the one preferred by Swedish malacologists. To me, however, the suppression and extraction of a name already on the Official List is a very serious thing to do and cannot fail to diminish strongly the authority of these Lists.

(B) The Commission can adopt a formal solution, maintaining that the name *anatina* is on the Official List, and that the type decides the actual species. This solution is, however, bound to cause profound and endless confusion between the two closely similar species involved, thus running counter to the Preamble of the Rules as now established. Also, it would appear most unfortunate if an application be allowed to lead to a situation which is exactly the opposite of that wanted by the applicant, and without any opportunity for him to interfere.

(C) The Commission can fix the present situation of the two names by setting aside the type material still extant and then adopt a neotype belonging to the *Anodonta* sp. as mentioned above. This is the solution which, in the present very intricate situation, I myself prefer, but I have not been able to get any help from Swedish malacologists in choosing a neotype among material in a Swedish museum and from Sweden. I have been forced, therefore, to choose a well preserved specimen from one of the easternmost localities in Denmark and well known by the Swedes—the moat around Copenhagen of which a part now forms a small lake in the Botanical garden. The specimen is briefly described in an annexe to the present application.

May I propose, therefore, that the Commission decides between the following possibilities:

PART I

for/against the use of its plenary powers

(*for* leads to solutions A or C)

(*against* accepts solution B, leaving the Linnaean types to determine the interpretation of the name *Mytilus anatinus*).

PART II

for solution A.

(1) to use the plenary powers to remove from the Official List of Specific Names in Zoology the name no. 426 *anatinus* Linnaeus, 1758 and, having done so, to suppress that name for the Purpose of Priority.

(2) to place the specific name *piscinalis* Nilsson, 1822, as published in the binomen *Anodonta piscinalis*, on the Official List of Specific Names in Zoology as name no. 426—replacing the former name *anatina* of that number.

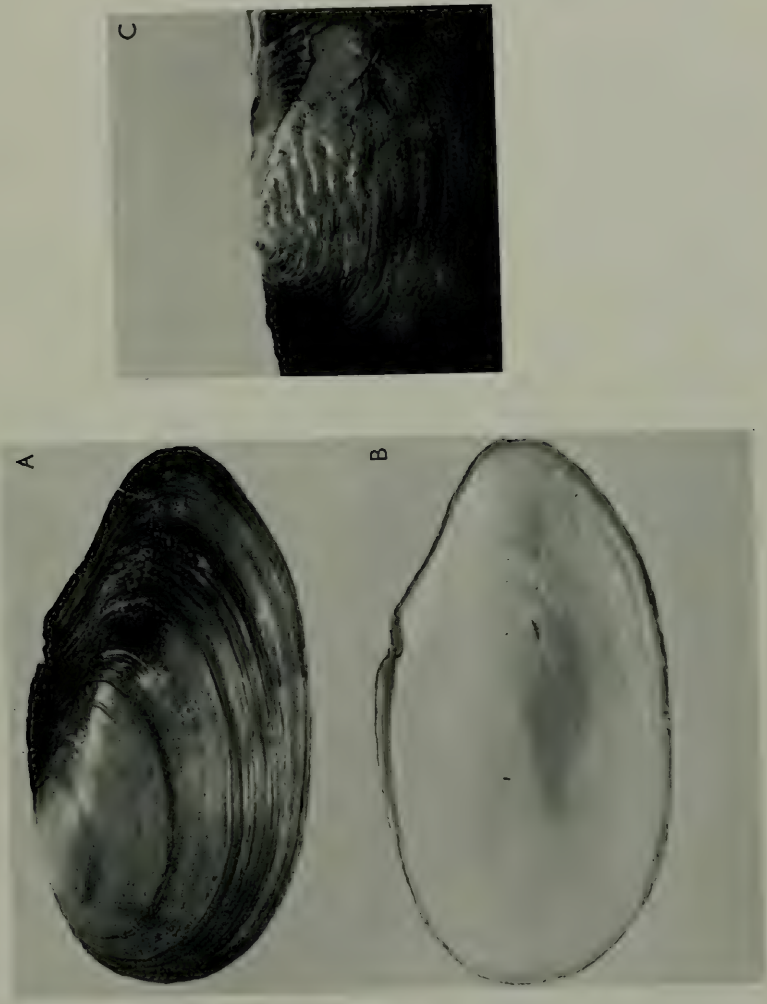
for solution C.

to use the plenary powers to set aside all type material for the species *Mytilus anatinus* Linnaeus, 1758 and—having done so—to accept as neotype for that species the specimen so designed in the annexe to the present application by H. Lemche.

Annexe

The specimen here proposed as a neotype for the species *Mytilus anatinus* Linnaeus, 1758 (after rejection under the plenary powers of the Linnaean type material of that species as unsuitable) is a double shell in the collections of the Universitetets zoologiske Museum in Copenhagen. The label runs as follows: " *Mytilus anatinus* Linnaeus, 1758 NEOTYPE selected from a sample from the lake in Botanisk Have, København, Danmark. —/12—1916. Legit C. M. Steenberg. Det. H. Lemche 1964."

Each valve has the measurements: length 123 mm, height 66 mm, width (of each shell) 20 mm. The apex of the left valve is intact and the right one has that region only very slightly damaged. The wavy structure on the initial parts of the shell is well preserved (fig. c) and distinctly goes across the lines of growth even though some of the periostracum has been lost in that place. Other particulars are to be seen in the accompanying figures (a–c).



Proposed neotype for *Mytilus anatinus* Linnaeus, 1758. A. Left valve from outside. B. Left valve from inside. C. Umbonal part of left valve, more enlarged. A and B, ¾ natural size.

CONCERNING THE USE OF *ANODONTA ANATINA* (LINNAEUS)

By Bengt Hubendick and Henrik W. Waldén (*Naturhistoriska Museet, Göteborg, Sweden*)

Linnaeus (*Syst. Nat.* (ed. 10) **1** : 706), described the pelecypod species *Mytilus anatinus*. Most authors have regarded this name as a prior synonym of the nomenclatorially unambiguous name *Anodonta piscinalis* Nilsson (1823). However, Hanley 1855, in his revision of the Linnean mollusk collection in London demonstrated that the only specimen there present belonged to the species usually known as *Pseudoanodonta complanata* (Rossmässler 1835). Hanley also figured this specimen (*Ipsae Linn. Conch.* 1855, Tab. 2, fig. 1), with which Linnaeus' original description is fully consistent. Later, Odhner revised the Linnean shells in Museum Ludovicae Ulricae in Uppsala, which also formed a partial basis of the *Systema Naturae*, and found that the actual specimen there was conspecific with the London specimen. Again the conspecificity between Linnaeus' *Mytilus anatinus* and *Pseudoanodonta complanata* was announced by Brander (*Ark. Zool.* (2) **9** : 6; 1956).

In the meantime the name *Mytilus anatinus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 706, had been placed on the Official List of Specific Names in Zoology (Opinion 336, No. 426).

Evidently the discrepancy between the typologically unequivocal Linnean name *anatinus* and its prelevant use in taxonomic practice is unsatisfactory. This has been actualized by Dr. H. Lemche of Copenhagen.

At this stage we can imagine two possible alternatives to solve this controversial situation. (a) the name *anatinus* on the Official List can be definitely connected to the Linnean type specimens, one of which (the London specimen) should be chosen as lectotype. (b) The name *anatinus* Linnaeus has to be removed from the Official List and the names *piscinalis* (Nilsson) and *complanata* (Rossmässler) placed on the Official List. If so, lectotypes or neotypes for these species must be selected, to preclude further ambiguity. We must, however, draw attention to the fact that the taxonomic background for judging the relation of the name *complanata* to the older name *minima* (Millet, 1833) does seem far from clear.

A third alternative, (c) to drop the existing Linnean types of *anatinus* and to select a neotype, conspecific with *piscinalis* (Nilsson), seems to us entirely inappropriate from a formal stand-point. But, if this alternative should be preferred it seems advisable to select the neotype from the type-locality of *Mytilus anatinus*.

Though the alternative (a) is formally simpler, we do not decidedly favour it before alternative (b), as we are well aware that it involves complications with regard to the prevalent practise, and do not admit the Linnean names any sacrosanctity in themselves. On the other hand, alternative (b) is not free from inherent inconsistency. We therefore leave it to the International Commission on Zoological Nomenclature to make the decision as to which alternative is to be preferred, when the formal rules and the practical consequences have been considered.

It is obviously important that before a name is placed on the Official List the material on which it is based is thoroughly examined by experts with experience of the collection concerned. Evidently this was not undertaken to the necessary extent when Opinions 335 and 336 were prepared, with the consequence that these Opinions in a number of cases did not fulfill their intended purposes, but have served to conserve the nomenclatorial difficulties in a more rigid state than before. As far as the authors Linnaeus, Retzius, Nilsson, Lovén, Malm and Westerlund are concerned paratypic material, apart from the Linnean collection in London, is kept in Swedish museums.

MARTINIA INFLATA (SCHNUR, 1854) (BRACHIOPODA): PROPOSED ADDITION TO THE OFFICIAL LIST OF SPECIFIC NAMES.

Z.N.(S.) 1645

By U. Jux and F. Strauch (*Department of Geology, University of Cologne, W. Germany*)

The object of this application is to request that the specific name of the spiriferacean brachiopod *Martinia inflata* (Schnur) be placed on the Official List of Specific Names in Zoology. This will ensure the rejection of the name *minor* as used by d'Archiac and de Verneuil.

In 1842 the latter described from Paffrath (Bergisch Gladbach, Rhenish Massif) a very common, rock building, smooth brachiopod under the name " *Spirifer glaber* Sow. Min. Conch., Pl. CCLXIX. f.1–2. Variety *minor*, nob. " This fossil had been mentioned before by F. Beuth (1776, p. 142, No. 134) but he gave neither a figure nor a clear description of these " Terebratulae laeves minimae ".

D'Archiac & de Verneuil diagnosed this brachiopod with the following note: " This shell, very abundant in certain beds at Paffrath, seems to be the miniature of the *Sp. glaber*, which is found in the mountain limestone of Belgium, Ireland, Yorkshire and Derbyshire; wherefore, notwithstanding the great difference of its stature, we can only give it as a variety. When the shell is not decomposed, which happens rarely, extremely fine radiating striae may be seen, crossed by the lines of growth. The shell when partly decomposed, is of a more or less silvery dull white ".

Though no figure is given with this description, there is no possible doubt that the authors of the new variety described a brachiopod later named by J. Schnur in 1854 as *Spirifer inflatus*. The type specimen which should be in the Department of Paleontology in Bonn, is lost. It is not clear in what sense the word " variety ", as used by d'Archiac & de Verneuil, is to be interpreted. The name *minor* is therefore to be given the rank of a subspecies (Art. 45d(i)).

None of the revisers of Schnur's species, especially E. Holzapfel (1895; *Spirifer inflatus* Schnur), H. Lotz (1900; *Spirifer* (*Martinia*) *inflatus* Schnur), H. Scupin (1900; *Spirifer* (*Martinia*) *inflatus* Schnur), W. Paeckelmann (1913, 1922; *Spirifer* (*Martinia*) *inflatus* Schnur) or Cl. Leidhold (1928; *Spirifer inflatus* Schnur) observed d'Archiac & de Verneuil's priority.

There would seem little useful purpose in substituting the senior synonym and such a move might actually be harmful. This is because the junior name has been clearly cited in many faunal lists from Middle Devonian localities and is used in stratigraphy. It may be worth mentioning that no quotation was found where d'Archiac & de Verneuil's name for the variety was used as a species indication in connection with the name *Martinia*.

The International Commission on Zoological Nomenclature is therefore requested:

Bull. zool. Nomencl., Vol. 21, Part 6. December 1964.

(1) to use its plenary powers to suppress the specific name *minor* d'Archiac & de Verneuil, 1842, as used originally by those authors to indicate a supposed Givetian variety of *Spirifer glaber* Sowerby, for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) to place the specific name *inflatus* Schnur, 1854, as published in the binomen *Spirifer inflatus*, on the Official List of Specific Names in Zoology;

(3) to place the name suppressed in (1) above on the Official Index of Rejected and Invalid Specific Names in Zoology.

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STRINGOCEPHALUS DEFRANCE, 1825 (BRACHIOPODA): PROPOSED PRESERVATION UNDER THE PLENARY POWERS. Z.N.(S.) 1646

By Raymond C. Moore (*University of Kansas, Lawrence, Kansas, U.S.A.*)

1. The purpose of the present application is to request the International Commission on Zoological Nomenclature to validate the generic name *Stringocephalus* Defrance, 1825, with the spelling almost universally and exclusively used in paleontological literature throughout the world since 1842 for one of the most distinctive Middle Devonian brachiopods found at many localities in Europe, Asia, and North America and considered to be an extremely important horizon marker for regional and intercontinental correlations. Also, this nominal genus is name-giver to the family STRINGOCEPHALIDAE King, 1850, (as STRIGOCEPHALIDAE, *Monogr. Perm. Foss.* (Pal. Soc.): 141) long recognized without competing synonyms in classification of the order Terebratulida. *Stringocephalus* is actually a junior objective synonym, because an emendation, of other etymologically similar generic names, however, which include *Strygocephale* Defrance, 1825 (in de Blainville, *Manuel de malacologie et de conchyliologie*: 511), and *Strigocephalus* Defrance, 1927 (*in* de Blainville's *Manuel* just cited, atlas, pl. 53, figs. 1–1c); it is a junior subjective synonym of *Strygocephalus* Goldfuss, 1842 (*in* d'Archiac and de Verneuil, *Trans. Geol. Soc. London*, (2) **6** : 369, pl. 56, figs. 5–5a). The spelling *Stringocephalus* was first published by Sandberger in 1842 (Leonhard und Bronn's *Jahrb. für Mineralogie*: 386).

2. No reasonable doubt can exist that Defrance intended to latinize the common vernacular name *Eulenkopf* (owl's head) used for this fossil in early German natural histories. Indeed, one of the best known *Stringocephalus* localities is near the very ancient Eulenberg Inn just east of Bergisch Gladbach in the Eifel. Accordingly, Davidson in 1865 (*British Fossil Brachiopoda*, (*Pal. Soc.*) **3** (6) : 12) maintained that *Stringocephalus* is a correctly formed latinized name derived from the Greek words *strix* (genitive, *stringos*), for screech-owl, and *cephala*, for head. Cloud (1942, *Geol. Soc. America, Spec. Paper* 38 : 106) concurred with Davidson in thinking that *Strygocephale* and *Strigocephalus* are erroneous transliterations made by Defrance and hence are emendable to the acceptable form introduced by Sandberger. It is true that the Code (1961, Art. 33, a, i) allows correction of an incorrect original spelling of a generic name, but this does not apply to *Strygocephale*, since erroneous transliteration is excluded (Art. 32, a, ii) from consideration as applied to a presumed incorrect original spelling. Thus *Strygocephale* must be recognized as the correct (and only) original spelling under stipulations of the Code and its type-species (*Terebratula burtini* Defrance, 1824) is fixed by monotypy.

3. Inasmuch as *Strygocephale*, *Strigocephalus* and *Strygocephalus* are all " forgotten names " (*nomina oblita*), unused in more than a century, Art. 23, b, provides that the Commission may be asked to place them on the Official List of Rejected Names in Zoology. Then, *Stringocephalus* Sandberger, 1842, would automatically gain place as the oldest valid name for this genus. Action of this

sort is considered to be undesirable both on the ground of doubt concerning the usefulness of *nomina oblita* procedure, especially in paleozoological nomenclature, and because authorship of *Stringocephalus* is really attributable to Defrance. An appeal for the Commission to exercise its plenary powers for the purpose of confirming nomenclature which now rests only on usage is thought to be preferable. This action is sought in order that the matter may be settled and so reported in the *Treatise on Invertebrate Paleontology* volume on Brachiopoda now nearing completion. It is beyond doubt that if the clearly stated provisions of zoological rules with respect to the Law of Priority should lead *Treatise* authors to recognize *Strygocephale* Defrance, 1825, as the valid name of this genus, *Stringocephalus* being rejected as an objective junior synonym, a large majority of concerned paleontologists throughout the world would ignore the *Treatise* and continue to use the name *Stringocephalus*.

4. Accordingly, the International Commission on Zoological Nomenclature is now asked:

(1) to use its plenary powers to validate the emendation to *Stringocephalus* of the generic name *Strygocephale* Defrance, 1825;

(2) to place the generic name *Stringocephalus* Defrance, 1825 (gender: masculine), type-species, by monotypy *Strygocephale* (sic) *burtini* Defrance, 1825, on the Official List of Generic Names in Zoology;

(3) to place the specific name *burtini* Defrance, 1825, as published in the binomen *Strygocephale burtini* (type-species of *Stringocephalus* Defrance, 1825) on the Official List of Specific Names in Zoology;

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:

   (a) *Strygocephale* Defrance, 1825, Ruled under the plenary powers to be an incorrect original spelling for *Stringocephalus*;

   (b) *Strigocephalus* Defrance, 1827, an incorrect spelling for *Stringocephalus* Defrance, 1825;

   (c) *Strygocephalus* Goldfuss, 1842, an incorrect spelling for *Stringocephalus* Defrance, 1825;

(5) to place the family-group name STRINGOCEPHALIDAE (correction of STRIGOCEPHALIDAE) King, 1850 (type-genus *Stringocephalus* Defrance, 1825) on the Official List of Family-Group Names in Zoology.

CRYPTORHYNCHUS ILLIGER, 1807, (INSECTA, COLEOPTERA): PROPOSED INTERPRETATION UNDER THE PLENARY POWERS

Z.N.(S.) 1648

By D. G. Kissinger (*Atlantic Union College, South Lancaster, Massachusetts, U.S.A.*)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to such extent as may be necessary to provide a valid basis for the continued use of the generic name *Cryptorhynchus* Illiger, 1807, as outlined herein. The problem involves suppression of one type-species designation and the validation of a second, later designation.

2. The generic name *Cryptorhynchus* Illiger was published in 1807 (*Mag. Insektenk.* **6** : 330) and originally contained three stirps; included in the first stirps was *Rhynchaenus lapathi* (L.), which is currently assigned to the genus *Cryptorhynchus* of the subfamily Cryptorhynchinae; the second stirps contained *Rhynchaenus pericarpius* F., which is currently assigned to the genus *Rhinoncus* Schoenherr (1837) of the subfamily Ceutorhynchinae; the third stirps is of no immediate concern. The stirps mentioned above each contained more than one species.

3. Subsequently in 1810 Latreille (*Consid. gén. Anim. Crust. Arachn. Ins.* : 450) designated the type-species as *Rhynchaenus pericarpius* F.

4. Subsequently in 1826 Schoenherr in *Curculionidum dispositio methodica* (: 21) designated the type-species of *Cryptorhynchus* as *Curculio lapathi* L., apparently ignoring Latreille's earlier selection of *pericarpius* F. It is in the sense of Schoenherr that the genus is currently recognized and as such forms the basis for the subfamily name Cryptorhynchinae, a group containing 600 genera, 5,500 species, and is the largest subfamily of Curculionidae.

5. In 1917 Pierce in *A manual of dangerous insects* . . . proposed the name *Sternochetus* in such a way that it could be used to replace *Cryptorhynchus* of authors. Buchanan in 1939 (*Proc. Ent. Soc. Washington* **41** : 82) fixed the type of *Sternochetus* as *Curculio mangiferae* F. At present it is not certain that *Sternochetus mangiferae* (F.) is congeneric with *Cryptorhynchus lapathi* (L.).

6. In 1919 Pierce (*Proc. Ent. Soc. Washington* **21** : 25) proposed the name *Cryptorhynchidius* with type-species *Curculio lapathi* L. (not *Cryptorhynchidius* Champion, 1914).

7. Unless action is taken by the International Commission it appears that: (a) the generic name *Cryptorhynchus* Illiger will have to be shifted from the Cryptorhynchinae to the Ceutorhynchinae; (b) it will be necessary to rename the taxon currently designated "*Cryptorhynchus*", a genus containing more than 300 species; and (c) it will be necessary to rename the supergeneric taxa subfamily Cryptorhynchinae, tribe Cryptorhynchini, and subtribe Cryptorhynchina. Any one of the above mentioned actions would cause great confusion in the taxonomy of curculionid beetles.

8. For the reasons set out above it is requested that the International Commission on Zoological Nomenclature:

(1) use its plenary powers:
  (a) to suppress the designation by Latreille, 1810, of *pericarpius* Fabricius as the type-species of *Cryptorhynchus* Illiger;
  (b) to validate the designation by Schoenherr, 1826, of *lapathi* Linnaeus as the type-species of *Cryptorhynchus* Illiger;
(2) place the generic name *Cryptorhynchus* Illiger, 1807 (gender: masculine) type-species, under the plenary powers, by designation by Schoenherr, 1826, *Curculio lapathi* Linnaeus, 1758, on the Official List of Generic Names in Zoology;
(3) place the specific name *lapathi* Linnaeus, 1758, as published in the binomen *Curculio lapathi* (type-species of *Cryptorhynchus* Illiger, 1807) on the Official List of Specific Names in Zoology;
(4) place the family-group name CRYPTORHYNCHINAE (correction of CRYPTORHYNCHIDES) Schoenherr, 1825 (*Isis* (Oken) 1825: col. 585) (type-genus *Cryptorhynchus* Illiger, 1807) on the Official List of Family-Group Names in Zoology.

THUNNUS SOUTH, 1845 (PISCES): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1652

By Bruce B. Collette (*Bureau of Commercial Fisheries Ichthyological Laboratory, Washington, D.C., U.S.A.*)
and
Robert H. Gibbs, Jr. (*U.S. National Museum, Washington, D.C., U.S.A.*)

The generic name *Thunnus* was proposed by South (1845, *Encycl. Metrop.* **25** : 620) as an emendation of [substitute for] *Thynnus* Cuvier (1817, *Règne Animal* **2** : 313), type-species by tautonymy, *Scomber thynnus* Linnaeus (1758, *Syst. Nat.* (ed. 10) **1** : 297–298), which is preoccupied by *Thynnus* Fabricius (1775, *Syst. Ent.* : 360) in Hymenoptera. Since this proposal by South was pointed out by Gill (1894, *Proc. U.S. Nat. Mus.* **16** : 693–694), most workers have used *Thunnus* South at least for the type-species. Within recent years numerous authors, including Fraser-Brunner (1950, *Ann. Mag. nat. Hist.* **12** : 142–146), Rivas (1951, *Bull. mar. Sci. Gulf and Carib.* **1** : 217–223), de Sylva (1955, *Bull. mar. Sci. Gulf and Carib.* **5** : 31–40), Collette and Gibbs (1963, *FAO Fish Rept.* 6, 1 : 27–28) and Gibbs and Collette (MS, Comparative anatomy and systematics of the tunas, genus *Thunnus*), have used *Thunnus* South for six commercially important species of tunas: *T. alalunga* (Bonnaterre, 1788), *T. albacares* (Bonnaterre, 1788), *T. atlanticus* (Lesson, 1830), *T. obesus* (Lowe, 1839), *T. thynnus* (Linnaeus, 1758), and *T. tonggol* (Bleeker, 1852). The World Scientific Meeting on the Biology of Tunas and Related Species, sponsored by the Food and Agriculture Organization of the United Nations and held in La Jolla, California from June 2–14, 1962, suggested (*FAO Fish Rept.* 6, 1 : 8) that the generic nomenclature utilized by Collette and Gibbs (*op. cit.*) be tentatively accepted pending future revisionary studies.

2. In 1955, Whitley (*Proc. Roy. zool. Soc. N. S. Wales*, 1953–54 : 51–52) published the rediscovery of *Thinnus* S.D.W. (1837, *Analyst* **18** : 208), an emendation of *Thynnus* Cuvier, 1817, which antedates *Thunnus* South, 1845 by eight years, and proposed that *Thinnus* S.D.W., be employed in place of *Thunnus* South. S.D.W., perhaps S. D. Wood, of Derbyshire according to Whitley, wrote systematic lists of the animals of Britain for the *Analyst* emending many scientific names by changing ph into f, y into i, etc. As far as we can determine, *Thinnus* S.D.W. has been used only by Abe (1955, *Bull. Jap. Soc. Sci. Fish.* **21** : 20–23). Later (1963) Abe employed *Thunnus* for *T. thynnus* in his encyclopedia of Japanese marine fishes (Genshoku Gyorui Kewsaku Zukan).

3. The tunas of the genus *Thunnus* are important commercial species. Because most studies of the tunas are made by fishery biologists, not by systematists, any change in nomenclature would adversely affect many biologists.

4. Therefore, we request the International Commission to:

(1) exercise its plenary powers to suppress the generic name *Thinnus* S.D.W., 1837, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Thunnus* South, 1845 (gender : masculine), type-species through *Thynnus* Cuvier, 1817, by tautonymy, *Scomber thynnus* Linnaeus, 1758, on the Official List of Generic Names in Zoology;

(3) place the specific name *thynnus* Linnaeus, 1758, as published in the binomen *Scomber thynnus*, (type-species of *Thunnus* South, 1845) on the Official List of Specific Names in Zoology;

(4) place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology;
  (a) *Thynnus* Cuvier, 1817 (a junior homonym of *Thynnus* Fabricius, 1775);
  (b) *Thinnus* S.D.W., 1837 (as suppressed under the plenary powers in (1) above);

(5) to place the family-group name THUNNINAE E. C. Starks, 1910 (*J. Morph.* **21**(1) : 79–80) (type-genus *Thunnus* South, 1845) on the Official List of Family-Group Names in Zoology;

(6) to place the family-group name THINNINAE G. P. Whitley, 1955 (type-genus *Thinnus* S.D.W., 1837) (invalid because the name of its type-genus has been suppressed under the plenary powers) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

XIPHIAS PLATYPTERUS SHAW & NODDER, 1792 (PISCES): APPLICATION TO VALIDATE THIS *NOMEN OBLITUM* FOR THE INDIAN OCEAN SAILFISH (GENUS *ISTIOPHORUS*). Z.N.(S.) 1657

By P. J. P. Whitehead (*British Museum* (*Natural History*), *London*)

1. In the most recent review of the Indian Ocean scombroid fishes (Jones & Silas, 1964, *Scombroid Symposium*, pt. I, *Mar. biol. Assn. India*, Mandapam Camp : 1–105), a single species of sailfish is recognized from this region. The name *Scomber gladius* Broussonet, 1786, has generally been cited as the earliest name for this species, but a few authors have realized that it was not Broussonet but Bloch (1793, *Nat. Ausl. Fische*, **7** : 81, pl. 345) who first used this name (e.g. Sherborn, 1902, *Index Animalium* : 423; Fowler, 1928, *Mem. Bernice P. Bishop Mus.*, **10** : 136). But Bloch's description and figure are poor and could apply to one of several species of sailfish. However, *Xiphias platypterus* Shaw & Nodder, 1792 (*Naturalist's Miscellany*, No. 28 : no pagination, pl. 88) is an accurate description of an Indian Ocean sailfish and is based on an extant specimen. The name would replace that of Bloch, but it is a *nomen oblitum* under Article 23 (b) (i and ii).

The purpose of this application is to request validation of *Xiphias platypterus* Shaw & Nodder by its addition to the Official List of Specific Names in Zoology.

2. Broussonet (1786, *Mém. Acad. Sci.* (1786) : 450–455, fig. 10.) described a sailfish, 7 feet 6 inches in length, collected by Sir Joseph Banks from " les mers des grandes Indes " and deposited in the British Museum. Broussonet used no Latin binomen, but referred to the fish by the French vernacular name *Voilier*. He distinguished the fish from other members of the genus *Scomber*, suggested that it was generically distinct but proposed no alternative generic name. Bloch (*loc. cit.*), Lacépède (1801, *Hist. Nat. Poiss.*, **3** : 375) and Cuvier & Valenciennes (1832, *Hist. Nat. Poiss.*, **8** : 293) refer to Broussonet's description, but attribute to him no Latin binomen.

However, Günther (1860, *Cat. Fish. Brit. Mus.*, **2** : 513), after listing certain pre-Linnaean references to sailfishes, cites in his synonymy for *Histiophorus gladius* the name " Scomber gladius, *Brouss. Mém. Acad. Sc.* 1786, p. 454, pl. 10; *Bl.* taf. 345 (bad)." Subsequent authors evidently assumed Broussonet's authorship of the name *Scomber gladius* as a result of a strict reading of Günther's synonymy; whereas Günther may have intended merely to reinforce Bloch's poor figure with Broussonet's good description, without meaning to imply that the name was not Bloch's.

3. The name *Scomber gladius* was first used by Bloch (*loc. cit.*). This description was not based on actual specimens and it refers to fishes from both the Atlantic and the Indo-Pacific (i.e. to at least two species of sailfish according to modern authors). Bloch cites, and criticizes, Broussonet's description and figure, mentions a drawing by Banks of a Sumatran specimen of 9 feet, but nowhere indicates that either his own drawing or description refer to an Indian Ocean species. Bloch's figure shows a fish with a single keel on the caudal peduncle (as in the swordfish, *Xiphias gladius* L.; two in *Istiophorus*).

4. *Xiphias platypterus* Shaw & Nodder, 1792, was based on a specimen collected by Banks and deposited in the British Museum—undoubtedly the same fish on which Broussonet based his description. The figure and the specimen agree in having the following combination of characters diagnostic of the genus *Istiophorus*:

(a) two keels on the caudal peduncle
(b) two separate and long pelvic rays
(c) a sail-like dorsal fin which is higher than body depth throughout its length (except for 4–5 short posterior rays)
(d) a long spear, rounded not flattened in cross-section.

The specimen (Reg. No. B.M.N.H. 1964. 7.2.1) has small, embedded scales, but these were evidently overlooked by Shaw (" skin smooth, without apparent scales "). This fish was fully described (but not figured) by Norman (1929, *J. mar. biol. Assn.* **16** (1) : 67–71). A photograph is here reproduced as Pl. 5.

Most authors have overlooked the first description of *X. platypterus*, and have attributed the name to Shaw, 1803 (*General Zoology* **4** (1) : 101, fig. 15), often placing it in the synonymy of the swordfish, *X. gladius* L. For these reasons, the priority of this name over *Scomber gladius* Bloch has not been realized. The species name *platypterus* has not appeared as a senior synonym since Shaw, 1803.

5. Lacépède (loc. cit.) proposed the genus *Istiophorus*, and included in it a single species, *I. gladifer* (it is not clear why Lacépède chose to ignore Bloch's name *gladius* and to latinize the vernacular name *porte glaive*). Jordan (1917, *Genera of Fishes*, Pt. 1 : 62) designated " *Scomber gladius* Broussonet " type-species of the genus *Istiophorus*. This was a correct designation, in spite of the error in attribution of authorship of the name (Article 67 (g)). The rules imply that this designation could therefore stand provided that Bloch, not Broussonet, is accorded authorship of the name. This, however, would greatly alter the meaning of Jordan's designation. Thus, *Scomber gladius* Bloch refers to an Atlantic or to an Indo-Pacific species, the type of which is an indifferent figure in which are combined features of both the sailfish and the swordfish. Since Jordan's designation related to a single species based on a named and extant specimen, the sense of his designation is best preserved by allowing it to continue to rest on the Banksian specimen examined by Broussonet. This is possible if *Xiphias platypterus* Shaw and Nodder is designated type-species of *Istiophorus*.

6. In order to avoid further instability in the nomenclature, especially in view of the unsatisfactory nature of Bloch's description of *Scomber gladius*, it is proposed that the International Commission for Zoological Nomenclature should:

(1) use its plenary powers to set aside all designations of type-species for *Istiophorus* Lacépède, 1801, and having done so to designate *Xiphias platypterus* Shaw & Nodder, 1792 as type of that genus;

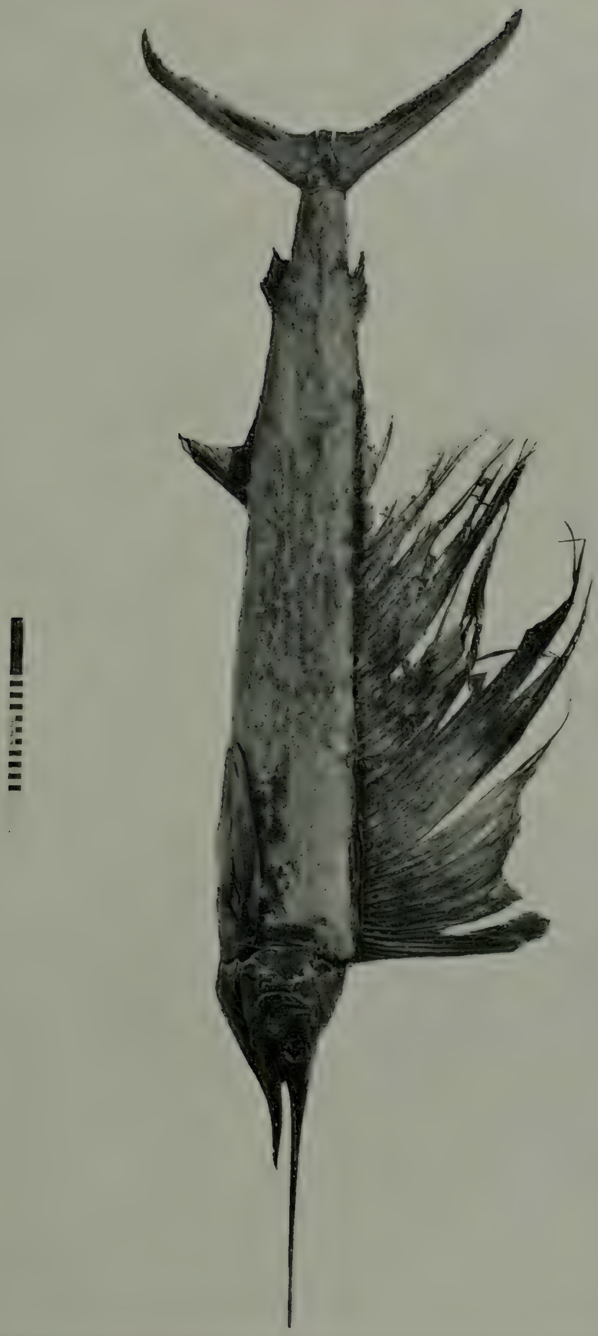
(2) place the generic name *Istiophorus* Lacépède, 1801 (gender: masculine), type-species, by designation under the plenary powers in (1) above, *Xiphias platypterus* Shaw & Nodder, 1792, on the Official List of Generic Names in Zoology;

(3) to place the specific name *platypterus* Shaw & Nodder, 1792, as published in the binomen *Xiphias platypterus* (type-species of *Istiophorus* Lacépède, 1801) on the Official List of Specific Names in Zoology;

(4) to place the specific name *gladius* as attributed erroneously to Broussonet, 1786, in the supposed binomen *Scomber gladius* on the Official Index of Rejected and Invalid Specific Names in Zoology.

Plate 5

Istiophorus platypterus (Shaw & Nodder). Holotype, a Banksian specimen of 7 feet 6 inches, on which were based the drawings of both Broussonet and Nodder. BMNH Reg. No. 1964. 7. 2. 1.



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TURRITELLA KANIERIENSIS G. F. HARRIS, 1897 (MOLLUSCA): PROPOSED DESIGNATION OF TYPE-SPECIMEN UNDER THE PLENARY POWERS. Z.N.(S.) 1659

By R. K. Dell, C. A. Fleming, J. Marwick, A. W. B. Powell, (*New Zealand*)

No lectotype has yet been designated for either of the New Zealand fossil molluscan species *Turritella* (*Zaria*) *tricincta* Hutton, 1873B, or *Turritella kanieriensis* Harris 1897. The name *tricincta* was proposed for fossils from " Shakespeare Cliff; Awatere; Waikari (small variety); Weka Creek; Mount Cookson ". In addition, under Var. B, Hutton gave the localities " Kanieri [modern spelling Kaniere]; Hatters Creek; Mount Cookson ". A representative collection of the species of Hutton's *Catalogue of Tertiary Mollusca and Echinodermata*, probably chosen, in large part if not wholly, from his original material, was preserved at the Colonial Museum, and later revised by Suter (1914). Of the many specimens that must have formed the basis of Hutton's *T. tricincta*, only two can now be identified, one from Shakespeare Cliff, Wanganui, and one of his var. B from Kaniere, Westland.

In his list of the Mollusca of his Wanganui System, which he correlated with the Pliocene, Hutton (1886 : 336) recorded *Turritella tricincta* with localities " Wanganui; Kaimatera; Petane; Matapiro; Shakespeare Cliff. Found also in the Pareora System ". On page 345, he stated that his locality " Shakespeare Cliff means the blue clay at Shakespeare Cliff and on the sea coast near Wanganui ", i.e. Castlecliffe. In the following year (1887 : 219), listing the Mollusca of his Pareora Series which he thought about Miocene, Hutton included his var. B from Kaniere, Westland, but he now identified it as the South American *T. patagonica* Sowerby. Later, in his Catalogue of the Pliocene Mollusca of New Zealand (1893 : 63, pl. 8, f. 60) he maintained the use of his *T. tricincta* for fossils from Wanganui.

Revising New Zealand material in the British Museum, from "Shakespeare Cliff " and " Kanieri ", Harris (1897 : 240) noted that the combination *Turritella tricincta* was preoccupied by " Borson et auct ", proposed *T. kanieriensis* nom. mut. for *T. tricincta* Hutton, but did not mention any type. Evidently he was unaware of Hutton's 1887 and 1893 papers separating Wanganui and Kaniere shells into different species. In his *Index Faunae Novae Zealandiae* Hutton (1904 : 76) accepted *kanieriensis* as replacing *tricincta* and thereby extended its range to Recent, presumably to supersede *T.* (*Eglisia*) *symmetrica* Hutton, 1873A which he omitted from his list, not even mentioning it in his synonymy.

Suter (1910 : 9) picked up this slip in procedure, replaced *kanieriensis* by *symmetrica*, and in his Manual (1913 : 272) listed both *tricincta* and *kanieriensis* in the synonymy of *symmetrica*. He also (1914 : 5, 16, 58) accepted Hutton's identification of var. B. with *T. patagonica*, describing and figuring (*op. cit.* pl. 16, f. 5) under this name Hutton's Kaniere shell which he stated, was " Holotype of *T. tricincta* var. B ".

Bull. zool. Nomencl., Vol. 21, Part 6. December 1964.

Marshall and Murdoch (1920 : 121) identified the Wanganui (i.e. " Shakespeare Cliff ") fossils as *T. symmetrica*, as also did Suter (1921 : 26).

Finlay (1926 : 389) did not support Hutton's and Suter's inclusion of *kanieriensis* in *symmetrica* but listed it as a separate member of his new genus *Stiracolpus*. He did not mention *patagonica* under any of his genera, although he gave what appears to be a complete list of what he accepted as New Zealand named species in their respective new genera, i.e. he rejected this record of an overseas species. It is not quite clear from the context whether he applied *kanieriensis* to the Kaniere or to the Wanganui shells, but it is fairly certain that he accepted it for the Kanieri one because he mentioned the older Tertiary members of *Stiracolpus* as differing from the younger ones in having the primary spirals differentially spaced, a character clearly shown by Suter's figure of the Kaniere shell.

In a revision of *Stiracolpus* (used as a subgenus of *Zeacolpus*), the writer (Marwick, 1957B : 16, 17) giving as a reason the uneven spacing of the primary spirals noted by Finlay, shifted *kanieriensis* to *Zeacolpus* s. str. He also differentiated a new species *Zeacolpus* (*Stiracolpus*) *delli* inhabiting the warmer western and northern coasts of New Zealand from the colder water *Z.* (*S*) *symmetricus* (Hutton) of Stewart Island and eastern Otago and South Canterbury. Further, for the Wanganui shells that had formed an important part of Hutton's *tricincta*, the two new subspecies *Z.* (*S*) *delli murdochi* and *Z.* (*S*) *delli granti* were proposed.

The interpretation of *T. kanieriensis* as being based on the Kaniere fossils (i.e. upon specimens distinguished as a variety of *tricincta* for which *kanieriensis* was proposed as a substitute) was not contrary to the International Rules of the time, for no procedure was laid down for the designation of the types of species and actually no designations had been made or indeed have yet been made for either of the nominal species in question. In discarding Hutton's and Suter's synonymy of *kanieriensis* with *symmetricus*, Marwick (probably also Finlay) was guided by analogy with the principle of tautonymy recognised in Article 30, I, d of the Rules for designating the type species of a genus. Thus the species *T. kanieriensis* was applied to one of Hutton's syntypes from Kanieri that would have been available for selection as a lectotype prior to issue of the 1961 Code but is no longer available. It is perhaps worth noting that this principle of tautonymy was given higher precedence in Article 30 of the old rules than was the exclusion of *species inquirendae*.

This procedure, however, is not permissible under the 1961 International Code, Article 72, (b) and (d), which states that specimens referred to by the author as variants are not available for choice as lectotypes, and that the type of a replacement nominal species must be that of the prior nominal species.

It is obviously desirable to have stability in the application of the name *kanieriensis* by designating a lectotype, but the only specimen now available under the 1961 Code is from Shakespeare Cliff, Wanganui. None of Hutton's syntypes from the other three localities, Awatere, Weka Creek, and Mount Cookson can be identified. If this specimen is chosen as lectotype then *kanieriensis* would not only supersede the name *murdochi* in current use for the Pleistocene subspecies *Zeacolpus delli murdochi* Marwick, 1957, but it would also reduce the name of the living form, *Z. delli* Marwick, 1957, to subspecific rank under that of the fossil *Z. kanieriensis* Harris, 1897, both undesirable changes. In addition, the species from Kaniere would still be lacking a name. On the other hand, the designation of the Kaniere shell as lectotype of *kanieriensis* would promote stability by preserving the status of *Z. delli* and *Z. delli murdochi* and, further, would save the introduction of an additional name by providing a suitable tautonymic basis for the Kaniere fossil, thus perpetuating the intention of its author.

Therefore in the interest of stability it is requested that the International Commission:

(1) exercise its plenary powers to suspend the application of Article 72b to the designation of a lectotype for *Turritella kanieriensis* Harris, 1897;

(2) to place on the Official List of Specific Names in Zoology: *kanieriensis* Harris (G. E.), 1897, as published in the combination *Turritella kanieriensis* nom. mut. from *Turritella tricincta* Hutton, 1873, not of Borson, 1821, Muenster, 1841; or Morris, 1845, and as based on one of the two identifiable original specimens of Hutton, namely that from Kanieri, now in New Zealand Geological Survey Collections, which Hutton included in his " var. B " and Suter figured (1914, pl. 16, f. 5) as *Turritella patagonica* Sowerby (not of Sowerby, 1846).

Summary

1. *Turritella* (*Eglisia*) *symmetrica* Hutton, 1873A proposed for a Recent N.Z. species.

2. *Turritella tricincta* Hutton, 1873B proposed for fossils from 5 localities, some " Miocene," some " Pliocene," one of them with a " small variety," also for " Var. B " from 3 localities, one, Kaniere, " Miocene."

3. Hutton (1887) identified his " Var. B " from Kaniere as *T. patagonica* Sowerby (South American Tertiary).

4. Harris (1897) revising specimens from Shakespeare Cliff and Kaniere proposed *T. kanieriensis* nom. mut. for *T. tricincta*, preoccupied.

5. Hutton (1904) accepted *kanieriensis*, extended its range to Recent, and dropped *symmetrica* without mention.

6. Suter (1910, 1913) restored *symmetrica* listing *kanieriensis* as junior synonym.

7. Suter (1914) described and figured as *T. patagonica* Sowerby Hutton's specimen of *T. tricincta* var. B from Kaniere, stating that it was " Holotype " of this variety.

8. Finlay (1926) proposed *Stiracolpus* n. gen., type species *T. symmetricus*, listing as a separate species under it *kanieriensis* Harris, evidently interpreting this species from Kaniere specimens.

9. Marwick (1957B) reduced *Stiracolpus* to a subgenus of *Zeacolpus*, describing under it the new Recent species *delli*, and the new subspecies *delli murdochi* for Wanganui Pleistocene fossils including those from Hutton's locality, Shakespeare Cliff. He also shifted *kanieriensis* (as based on Kaniere fossils) to *Zeacolpus* s. str.

10. The International Code (1961) by Article 72(b) and (d) now declares that authors' varieties are not available as lectotypes and that a replacement name automatically takes the same type as the prior name.

11. Up to the present time, no lectotype of either *tricincta* or *kanieriensis* has been designated and the only now identifiable specimens from Hutton's type series of 1873 are: one from Shakespeare Cliff, and one of his var. B from Kaniere, described and figured by Suter, 1914 as " Holotype of *tricincta* var. B. Hutton."

12. To ensure stability a type should be designated for *kanieriensis*, but to act by the Code would mean:

(a) reducing the subspecies *Z. delli murdochi* to the synonymy of *Z. kanieriensis*

(b) reducing the Recent *Z. delli* to subspecific rank under the fossil *Z. kanieriensis*;

(c) using the name *kanieriensis* for fossils of a different age and locality from any occurring at Kaniere.

(d) leaving Kaniere specimens without a name so that a new name would be needed.

13. Designation of Hutton's syntype of var. B from Kaniere as lectotype of *kanieriensis* would preserve the present status of *Zeacolpus* (*Stiracolpus*) *delli* and *Zeacolpus* (*Stiracolpus*) *delli murdochi* and also would retain the name *kanieriensis* in the sense in which it has been used for Kanieri fossils since 1926.

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Statius Müller, P. L. 1766. *Deliciae Naturae selectae*

CORRIGENDA

page 26. Ruling (5) line 1: substitute " 1917 " for " 1817 "

page 27. Line 14: substitute " 1917 " for " 1817 "

page 29. Line 3 from bottom: substitute " 312 " for " 213 "

page 33. Ruling (2) line 1: substitute " Hodgson " for " Hogdson "

page 33. Ruling (2) line 2: substitute " 1837 " for " 1844 "

page 81. Line 11 from bottom: substitute " Holthuis " for " Holhuis "

page 94. Ruling (3)(b) line 1: substitute " 1798 " for " 1793 "

page 98. Ruling (6)(b) line 1: substitute " 1869 " for " 1896 "

page 108. Ruling (2)(a) line 2: substitute " 1829 " for " 1820 "

page 109. Line 9 from bottom: substitute " 177 " for " 179 "

page 112. Line 10: substitute " 346 " for " 246 "

page 158. Line 15: substitute " 1954 " for " 1956 "

page 159. Line 7: substitute " mis-spelling of " for " mis-spelling to "

page 211. Line 5: substitute " *Elaps* " for " *Elas* "

page 213. Line 17: substitute " θεῆς " for " θεησ "

page 213. Line 20: substitute " οὐ " for " ὸν "

page 213. Line 22: substitute " ετέον " for " ἐστέον "

page 218. Line 12 from bottom: substitute " our " for " your "

page 219. Last line: substitute " *Cercǒps* " for " *Cerǒps* "

page 340. Ruling (3)(hh), line 1: substitute " *Goneplax* " for " *Goneplex* "

page 348. Line 21: substitute " (7)**13**: 209 " for " (7)**1**: 209 "

page 350. Lines 5 and 6 from bottom: substitute " Dana, 1852, *Amer. J. Sci. Arts* (2)**13** : 122 " for " Stimpson, 1858, *Proc. Acad. nat. Sci. Philad.* **1858** : 234"

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